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Sustaining Long-Term Recovery as Part of Justice Reform

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Journal for Advancing Justice

The *Journal for Advancing Justice* provides justice and public health professionals, policy makers and other thought leaders, academics, scholars, and researchers a forum to share evidence-based and promising practices at the intersection of the justice and public health systems.

The journal strives to bridge the gap between what has proven effective and what is often considered business as usual.

Although the *Journal for Advancing Justice* emphasizes scholarship and scientific research, it also provides practitioner-level solutions to many of the issues facing the justice system. To that end, the journal invites scholars and practitioners alike to submit articles on issues of interest impacting global justice systems, particularly where those systems collaborate with public health systems.

The *Journal for Advancing Justice* was created by experts at All Rise. All Rise encompasses more than three decades of credibility, expertise, and leadership, with a constituency of thousands of public health, social service, and legal professionals spanning every intercept point in the justice system, from entry to reentry.

All Rise

All Rise is the training, membership, and advocacy organization for justice system innovation addressing substance use and mental health at every intercept point. We believe every stage of the justice system, from first contact with law enforcement to corrections and reentry, has a role in improving treatment outcomes for justice-involved individuals.

Through our four divisions—the Treatment Court Institute, Impaired Driving Solutions, Justice for Vets, and the Center for Advancing Justice—All Rise provides training and technical assistance at the local, state, and national level, advocates for federal and state funding, and collaborates with public and private entities. All Rise works in every U.S. state and territory and in countries throughout the world.

All Rise was founded in 1994 as the National Association of Drug Court Professionals and is a 501(c)3 nonprofit.

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ASSOCIATE EDITOR NOTE

Introduction: Sustaining Long-Term Recovery as Part of Justice Reform

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This volume of the *Journal for Advancing Justice* centers on the theme of sustaining long-term recovery as part of justice reform. Our understanding of recovery, particularly from substance use and mental health disorders, is continuously evolving as research offers new insights into the risks and protective factors that impact the recovery process. The recently released second edition of the *Adult Treatment Court Best Practice Standards* (All Rise, 2024) is a great example of how science guides justice innovation. The standards synthesize decades of research to provide justice, treatment, and social service professionals with clear and practical guidance on how to create a culture of recovery-oriented programming, whether that be in treatment courts, in community corrections, or even in jails and prisons. Research has shown that effective programming in the justice system can reduce drug overdoses and deaths (Lindenfeld et al., 2022), increase family well-being and reunification (Center for Children and Family Futures & All Rise, 2019), and reduce recidivism (Mitchell et al., 2012), to name a few positive outcomes.

Consistent with the theme of this volume, the justice system can support individuals in achieving internal motivation for recovery, but perhaps most important, in developing the skills needed to sustain their recovery beyond their involvement in the legal system. Justice professionals and treatment providers must collaborate successfully to address the complex needs that many individuals have, such as trauma, homelessness, food insecurity, and a lack of healthcare (Lamberti, 2016). This volume of the *Journal for Advancing Justice* presents four articles that add to the knowledge base on how a collaborative relationship among justice, treatment, and social service professionals can help individuals sustain their recovery. These articles focus on topics such as helping participants with money management, the impact of peer recovery support on recovery capital gains, examples of how trauma-informed and gender-responsive interventions support healing for female veterans, and how a strengths-based cognitive therapy can be tailored to the needs of each justice-involved individual.

In the first research article, Jones-Sanpei and colleagues use mixed methods to explore the understudied topic of financial security. Participants were recruited from a county drug and alcohol treatment program, and most in the study were involved in the justice system. A notable finding was that participants wanted to learn about financial wellness, but that coordinated strategies are needed to increase attendance and engagement in such education. Financial capability-building interventions, as the authors call them, must focus on using accessible language (e.g., "money management" instead of "financial literacy"), building trust with participants prior to having in-depth financial discussions, and ensuring that financial interventions are provided at the appropriate time, such as once participants have acclimated to treatment. A strength of the article is that the authors provide a logic model that will be useful to any program considering a financial capability-building intervention. More research on the effectiveness of these programs is clearly needed; however, Jones-Sanpei and colleagues offer insight to suggest that as financial knowledge increases, so does the likelihood of sustained recovery.

The second research article, by Martel and colleagues, examines the interplay among peer recovery support, recovery capital, and key recovery outcomes, such as mental health symptoms, learned helplessness, and adverse childhood experience scores. The sample was made up of adult

drug court participants in Arkansas who received peer recovery services; in their review of participants' 6-month follow-up interviews, the researchers found significant increases in recovery capital, which was measured using the Brief Assessment of Recovery Capital (BARC-10). Specifically, when drug court and peer recovery services were used concurrently, participants were 6 times more likely to have high recovery capital at the follow-up interview. Their study emphasizes that many factors, such as childhood trauma, impact the recovery process, but with the correct interventions, gains in recovery capital are possible. Plus, justice programs that want to evaluate recovery capital among their participants may want to consider using the BARC-10; more information on this measurement tool can be found in the article.

The third article is a practice commentary in which Valeus discusses the timely topic of helping justice-involved female veterans. This article will be useful to those who work in veterans treatment courts, judges who manage dockets that include veterans, the Department of Veterans Affairs, and treatment providers working with veterans. The commentary offers six recommendations for what the author calls "a mission of healing" for female veterans. Each recommendation is aligned with trauma-informed principles and military values. The article also shares strategies to support recovery; for instance, the author explains how empowerment theory, a trauma-informed principle, is related to the military values of duty, honor, and integrity, and how the combination of empowerment and honor can assist female veterans in advocating for themselves in the justice system.

The final article, another practice commentary, is by Arnold and colleagues, who present the Recovery-Oriented Cognitive Therapy (CT-R) model. CT-R is based on the timeless work of Aaron T. Beck, and the model aims to improve cognitive health, treat substance use and mental health disorders, create treatment plans based on participants' strengths, and empower those involved in the justice system. Justice-involved individuals, unfortunately, often experience judgment and stigma from society, and they sometimes internalize these negative beliefs. CT-R seems to be a promising model to help people replace negative beliefs with ones that support ongoing recovery and positive behavioral change. Numerous tables and figures are used to visualize CT-R, and readers may especially appreciate the concept of a Recovery Map, which could be incorporated into clinical treatment plans.

In summary, the four articles in this volume highlight that recovery is a process, and a highly individualized one at that, and multiple approaches and interventions exist to support individuals with their process of change. Several themes emerged with the articles, and at times, these themes overlapped: As we continue to seek improvement and innovation in the justice system and to help treatment court participants sustain their recovery, we must provide a safe environment for people to heal (e.g., from childhood trauma, combat experience), promote empowerment through education (e.g., learning money management, changing negative beliefs), and identify the inherent strengths of all the people we serve.

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John Gallagher, PhD, LCSW, LCAC, is a justice reform researcher who explores how treatment courts use medications to support recovery, identifies the factors that contribute to racial, ethnic, and gender disparities in treatment court outcomes, and assesses the effectiveness of interventions in substance use and mental health disorder treatment. Dr. Gallagher has developed a national reputation for excellence in treatment court research. He helped develop the Racial and Ethnic Disparities (RED) Program Assessment Tool, presents the equity and inclusion curriculum for All Rise, and advocates for best practice standards in serving African Americans and women in treatment courts. Additionally, Dr. Gallagher is a licensed clinical social worker and licensed clinical addiction counselor who has practiced substance use and mental health disorder counseling since 2002. He has worked with adolescents, adults, and families, and was a treatment provider for treatment courts in Pennsylvania, Texas, and Indiana.

RESEARCH REPORT

Financial Capability Building in the Treatment of Substance-Related and Addictive Disorders: A Co-Creation and Engagement Approach to Intervention Development

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ABSTRACT

Most drug treatment court participants face significant barriers in managing their personal finances. Financial functioning is an essential element of recovery capital and necessary to achieve common drug treatment court goals, such as obtaining employment and housing and meeting financial obligations. Previous findings based on data collected over almost 3 years revealed that a majority (51%) of potential clients for a county drug and alcohol treatment program (n = 4,895), many of whom were justice involved and had substance-related and addictive disorders, had no access to traditional financial services, and over 70% used cash, prepaid debit cards, and money orders to pay bills. This paper reports on the initial steps of developing interventions to support drug treatment court participants in building financial capability.

Using an iterative developmental intervention and mixed-methods approach, researchers assessed institutional barriers to developing the financial capability of drug and alcohol treatment program clients. Initial survey findings and qualitative reviews were shared with staff during an iterative process of intervention development. Research identified key barriers to financial capability-building interventions, such as client and staff engagement, language used in data collection and treatment, and timing of data collection and interventions. Drug treatment court participants need targeted training in credit recovery, financial literacy, and money management skills using appropriate language and strategic timing of data collection and interventions. Overcoming key barriers to developing interventions is essential to building financial capability.

INTRODUCTION

Personal empowerment and resiliency, as operationalized in recovery capital, is a primary goal in the treatment provided to most drug treatment court clients (Hennessy, 2017). Money management skills and financial capability, or knowing how to become financially responsible along with the ability to do so (Sherraden, 2013), are essential in developing such recovery capital. Published research focuses primarily on individuals with serious mental illnesses and disabilities (Harper et al., 2018). However, clients in treatment for substance-related and addictive disorders (SRADs), both justice involved and not, are also working to develop recovery capital and financial capabilities (Kahn et al., 2019). As defined in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders*, SRADs include opioid use disorder, stimulant use disorder, alcohol use disorder, and substance use disorder (American Psychiatric Association, 2013) and may also be referred to as substance use disorders (SUDs). While many individuals with severe, persistent mental illnesses have a payee, or a named representative responsible for assisting them with managing finances, those with SRADs generally do not. Thus, clients with SRADs are in particular need of training in financial literacy and money management to stabilize and develop their personal financial capability.

While not all clients with SRADs are connected with drug treatment courts, those who are may have access to resources that can support interventions focused on developing financial capability. Drug treatment courts are designed to support participants' success in substance use treatment and in meeting work, school, and family responsibilities, with drug treatment court team members (judges, attorneys, case workers, treatment providers, etc.) actively delivering interventions to improve the functioning and well-being of individuals, families, and communities (Schilling, 1997). Drug treatment court participants with SRADs in agency-based treatment are in the process of developing recovery capital, or the personal resources to overcome substance use disorders. Recovery capital includes a number of personal characteristics, such as physical and mental health, material resources, and social relationships (Gilbert & Kurz, 2018; Hennessy, 2017), often categorized into four components or domains: social, physical, human, and cultural (Cloud & Granfield, 2009). Financial capability is related to two of these domains: The physical domain includes tangible resources such as money and access to traditional financial services like bank accounts. The human domain includes personal characteristics such as financial literacy, understood as the knowledge and skills necessary to manage financial resources to achieve recovery goals.

As with all elements of recovery capital, financial capability varies with the individual client, as financial issues are often integrated with living situations and clients tend to prioritize basic financial circumstances (Gilbert & Kurz, 2018). Qualitative studies show that financial worries and constraints are important barriers to developing recovery capital and that improved financial capabilities facilitate recovery for individuals with SRADs (Beaulieu et al., 2023; Valencia & Baronese, 2024; Winiker et al., 2023). Given these findings on the importance of financial capability interventions for drug treatment courts and SRAD treatment in general, we draw on an implementation science framework to systematically strengthen the initial development of an intervention and explore barriers to the development and implementation of such interventions.

Implementation Science

Since policies and programs are only as good as their implementation, the field of implementation science (IS) focuses on strengthening the implementation and utilization of evidence-based practices (Eccles & Mittman, 2006). While IS originated in public health (Bauer et al., 2015), bridging the gap between clinical research and practice is also critical for other applied fields such as social work and medicine (National Institute of Mental Health, 2023; Office of the Surgeon General, 2001). IS emphasizes community-academic partnerships (Adams, 2019) and integration of context in the process of developing and implementing effective interventions (Klein & Sorra, 1996), as well as development of clear measurement and evaluation plans to establish iterative development loops and improvement processes (Fraser & Galinsky, 2010). This paper uses an intervention mapping (IntMap) model grounded in community-based participatory research to develop an intervention aligned with community perspectives and needs (Fernandez et al., 2019; Palinkas et al., 2017). IntMap consists of sequential stages of intervention development: a needs assessment that looks at organizational capacity and development of logic models, identification and assessment of relevant evidence-based interventions, adaptation of

evidence-based interventions, planning for implementation, and development of an evaluation plan.

The work reported herein builds on a previously published preliminary analysis of the needs assessment (Jones-Sanpei & Nance, 2020). This analysis found that in a specific county, 50% of the potential clients of a county Department of Drug and Alcohol Prevention and Treatment (DDAPT) program—that is, individuals who completed the intake process regardless of whether they went on to receive services—did not have access to traditional financial services, and over 70% of potential clients without bank accounts used cash or nontraditional unsecured financial services and instruments such as prepaid debit cards or money orders for essentials. On average, existing clients reported responsibility for making more than four regular payments each month such as rent, groceries, utilities, car payments, etc.

We report here on the ensuing process of adapting available financial capability interventions and planning for implementation. By focusing on implementation issues regarding interventions to develop money management skills and access to financial resources, this study contributes significantly to the addiction recovery literature and provides guidance for drug treatment court teams working with clients in recovery. Our primary research agenda was to identify barriers to improving financial capability as well as institutional/facilitation barriers to developing and implementing interventions, as a means of increasing financial capability and recovery capital and ultimately improving treatment outcomes among clients with SRADs. Based on this agenda, we developed three research questions:

1. What barriers do case managers and researchers face in learning about the financial capability of clients with SRADs?
2. What recommendations do clients and case managers have for incorporating financial capability training into existing treatment protocols?
3. What community resources are available for potential interventions?

METHODS

Study Population

The overall population for this study comprised all treatment providers, case managers, staff, current clients, and potential clients at a county DDAPT program. Data were collected from study participants at different time periods (T1…T7, defined in Figure 1) over the course of 29 months. Money management questions were included in the intake form completed by all potential DDAPT clients over the 29-month period (T1), and a subset of the DDAPT clients in treatment were surveyed at specific times during this period (T3, T5, T7). While the administrators and case managers (T2, T4, T6) worked with both justice-involved and non-justice-involved clients, the majority of the DDAPT clients surveyed (T3, T5, T7) were justice involved. Most clients were referred to treatment by community partners following a substance-related offense or a finding of child abuse or neglect, and thus were participating due to a negotiated agreement as part of a plea bargain or a condition of probation. Study participants at T3, T5, and T7 were participating in drug treatment court or family treatment court while in treatment, working with the case managers and administrative staff who participated in the focus groups (T2, T4, T6). As the DDAPT program was the social safety-net program for treatment of SRADs, a majority of clients reported their income as being at or below federal poverty guidelines. Funding for treatment came from federal, state, and county funds, as well as Medicaid and sliding-fee-scale payments for non-Medicaid clients based on self-reported income.

With respect to general clinical diagnoses, drug treatment court study participants had a primary diagnosis of an SRAD, although secondary diagnoses of mental health conditions such as depression, anxiety, general bipolar disorder, and posttraumatic stress disorder were common. The primary addictive psychoactive drug at admission was opiates (licit and illicit), followed by methamphetamine and other stimulants, cannabis, and alcohol. Very few study participants had a co-occurring diagnosis such as severe mental illness, psychosis, or severe bipolar disorder with extreme mood swings. Almost no clients were considered disabled according to Social Security Administration standards, and any receiving federal Supplemental Security Income or Social Security Disability Income did not have representative payees. The self-reported client, staff, and

clinician demographics (Figure 1) were representative of the county in which the data were collected, which is over 80% non-Hispanic White, according to the U.S. Census Bureau (U.S. Census Bureau, 2022). The modal client education level was high school graduate (51% to 53%), with 17% to 24% of clients reporting less than a high school education and 25% to 30% reporting additional years of schooling post-high school (Figure 1).

Ethical Review

Applications for institutional review board approval at both the state health department and the first author's affiliated university were returned with the designation of service quality improvement and not human subjects research.

Data Collection

As reported in Figure 1, data were collected in multiple phases of the research project (T1…T7) over a period of 29 months. Quantitative and qualitative data were collected through previously published client surveys (T1, T3, T5, T7) (Jones-Sanpei & Nance, 2020), administrative records such as demographic components of the electronic health record, program notes, minutes from meetings with staff (T2), and focus groups with case managers (T4, T6). Focus groups and staff discussions at T2, T4, and T6 occurred during regularly scheduled staff meetings. There was no overlap between the staff meeting and the case manager focus groups. However, there was considerable overlap between participants in the two focus groups with the case managers (T4 and T6). Participation was not incentivized.

Current clients were invited to complete the surveys for T3 and T5 on county iPads prior to group outpatient therapy sessions and were given the option of not participating in the research. Clients who were assigned to detox and inpatient treatment did not participate beyond the intake survey (T1). Participants in the pilot class were offered a written survey to complete (T7). The T1, T3, T5, and T7 samples are not independent, as all potential DDAPT clients were given the opportunity to respond during intake at T1, and the surveys at T3, T5, and T7 were offered to then-current DDAPT clients in outpatient treatment. However, individual responses were neither linked nor tracked, and the samples were treated as repeated independent cross-sectional samples drawn from the same population.

Specifically, data were collected in the following manner.

T1: Over a 29-month period, three money management questions were included during the intake process for all prospective clients (T1, $n = 4{,}895$). Not all prospective DDAPT clients became clients, and clients assigned to earlier levels of care such as detox or intensive inpatient treatment were not included in the study beyond this phase until they had progressed to outpatient treatment.

T2: Administrative staff, including the director, clinical director, program managers, and drug treatment court coordinators (T2, $n = 6$ out of 8 possible respondents), were presented with initial findings from T1 during a regular staff meeting, leading to a discussion of those findings.

T3: A more extensive financial literacy survey was offered to current clients in outpatient group therapy programs at T3 (T3, $n = 73$ out of 80 possible respondents).

T4: A focus group with case managers (T4, $n =$ 12 out of 16 possible respondents) discussed findings from T3.

T5: The pilot community bank financial literacy class was offered to the clients in one of the general outpatient treatment programs. A paper evaluation survey was offered to the attendees (T5, $n = 10$ out of 12 possible respondents).

T6: A focus group with case managers (T6, $n =$ 10 out of 12 possible respondents) discussed findings from T5.

T7: A money management survey was offered to current clients in outpatient group therapy programs (T7, $n = 70$ out of 80 possible respondents).

Client surveys were used at T1, T3, and T7. The instruments and methodology were previously reported (Jones-Sanpei & Nance, 2020). At T1 during intake, prospective clients were asked questions about financial management. At T3 and T7, current clients were offered the survey on a county iPad before outpatient group therapy sessions, with the option of opting out of the survey. A confidential number was used to match survey responses with administrative data such as education and demographics. Data were then deidentified prior to storage and analysis by researchers. No individual clinical data were used.

FIGURE 1. Timeline and Participant Demographics for Qualitative and Quantitative Data Collection

T1 (May 2017–October 2019) Intake Survey	• *n* = 4,895 potential DDAPT program clients • Race/ethnicity: 79% non-Hispanic White, 15% Hispanic, 7% other • Sex: 62% male • Education: 17% < high school, 53% high school grad, 30% post-high school education
T2 (September 2017) Staff Focus Group	• *n* = 6 staff (director, clinical director, program managers, and drug treatment court coordinator); 8 potential participants • Race/ethnicity: 100% non-Hispanic White • Sex: 33% male • Education per job requirements: 100% post-high school education
T3 (October–November 2017) Follow-up Survey	• *n* = 73 DDAPT program clients; 80 potential respondents • Race/ethnicity: 82% non-Hispanic White • Sex: 54% male • Education: 24% < high school, 51% high school grad, 25% post-high school education
T4 (June 2018) Case Manager Focus Group	• *n* = 12 case managers; 16 potential participants • Race/ethnicity: 82% non-Hispanic White, 12% Hispanic, 6% other • Sex: 16% male • Education per job requirements: 100% post-high school education
T5 (April 2019) Wells Fargo Financial Literacy Classes	• *n* = 10 DDAPT general outpatient clients; 12 potential respondents • Race/ethnicity: 90% non-Hispanic White, 10% African American • Sex: 90% male • Education: Not collected
T6 (June 2019) Case Manager Focus Group	• *n* = 10 case managers; 16 potential participants • Race/ethnicity: 82% non-Hispanic White, 12% Hispanic, 6% other • Sex: 16% male • Education per job requirements: 100% post-high school education
T7 (May–July 2019) Money Management Survey	• *n* = 70 DDAPT program clients; 80 potential respondents • Race/ethnicity: 76% non-Hispanic White • Sex: 53% male • Education: 21% < high school, 53% high school grad, 26% post-high school education

Program notes and meeting minutes were used at T2, T4, and T6. As described above, researchers used an iterative approach, sharing initial findings from client surveys (collected at T1, T3, and T5) with staff in focus groups (T2, T4, T6), leading to modifications in the intake, follow-up, and money management surveys (T1, T3, T7), as well as qualitative feedback with respect to data collection processes, interpretation of findings, and possible interventions. Staff used results from the surveys to initiate conversations with clients about money management skills. Focus group participants were asked open-ended questions about feedback from clients, recommendations on the content and formatting of survey questions, and alternative causal explanations for preliminary findings. Field notes were completed shortly after each focus group and revised until research team members agreed they were complete.

Researchers and treatment staff also partnered with a local bank to offer financial literacy training to clients at the general outpatient level of care, as defined by the ASAM Criteria,[1] as an initial exploration to assess the community institution's willingness to partner, as well as to gauge client interest in the subject matter (T5). Client feedback was collected at the conclusion of the pilot study via an evaluation survey with both Likert scale and open-ended questions (T5), distributed on paper and collected by the bank instructors. Initial survey results were shared in a focus group with case managers (T6).

Notes from the focus groups (T2, T4, T6) were analyzed inductively using a qualitative analysis, grounded theory approach (Creswell & Clark, 2011) to identify emerging themes (Table 1). One member of the study team reviewed all notes and coded the data for themes relevant to financial capabilities. Other team members reviewed the notes, and themes were discussed until consensus was reached. Results were shared with organizational staff for reflexivity until agreement on central themes was reached (Berg, 2009; Creswell & Clark, 2011). Feedback was solicited through ongoing consultation with program staff and professional colleagues regarding the evaluation of codes, categories, and emerging theoretical constructs.

Data Analysis Using Intervention Mapping (IntMap)

We report in the methods on the process by which we applied the IntMap framework to develop the models and implementation strategies to enhance and strengthen money management skills in a recovery setting. Descriptions and explanations of the models and implementation strategies are in the results. Key themes and theoretical constructs from each data collection are reported in Figure 2. Findings from the intake survey (T1) support the needs assessment with the finding that over 50% of potential clients did not have access to traditional banking services. Taking that needs assessment to the staff (T2) led to a discussion of potential determinants and possible alternatives to traditional banking services, resulting in themes and theoretical constructs that were tested in the next client survey (T3). Sharing the findings from T3 with the case managers in a focus group (T4) introduced the themes of language and issues surrounding client trust. Simultaneously, exploring potential community resources and partnerships led to the pilot financial literacy class taught by bankers from a community bank, which developed client interest in money management and introduced a theme of credit recovery. Sharing findings from the T5 financial literacy class with case managers (T6) resulted in a new theme of issues involving the timing of data collection and interventions. Finally, the last client survey (T7) expanded the theme of financial literacy and the importance of money management to client recovery.

The study team used the IntMap framework to structure the analytical approach, focusing on development of a nested-system model (Figure 3) and logic model of change (Table 2) using the key themes and theoretical constructs as identified in Figure 2, intervention adaptation and development (Fernandez et al., 2019), and an iterative mixed-methods implementation approach (Creswell & Clark, 2011). The methods and findings of the needs assessment conducted through the intake survey (T1) and money management survey (T7) were published previously (Jones-Sanpei & Nance, 2020). We used the Expert Recommendations for Implementing Change (ERIC) implementation strategies framework to categorize implementation strategies identified

1 The ASAM Criteria and Continuum of Care, from the American Society of Addiction Medicine, uses standardized assessments to determine the appropriate level of care across a continuum ranging from prevention and early intervention to general outpatient care, intensive inpatient care, or detox (Mee-Lee et al., 2013). Upon presenting for treatment, clients are assigned to an appropriate level of care, which changes as they progress toward recovery. Level 1 in the continuum involves general outpatient services.

FIGURE 2. Key Themes and Theoretical Constructs by Data Collection Timeline

T1 (Potential DDAPT program clients)	• Needs assessment: < 50% of clients have bank accounts
T2 (Staff)	• Development of potential determinants • Alternatives to bank accounts
T3 (Clients)	• Testing determinants: Financial literacy, institutional trust
T4 (Case managers)	• Language issues: Money management or financial capability/literacy • Client trust issues
T5 (General outpatient clients)	• Community partnership • Client interest in classes and credit recovery
T6 (Case managers)	• Timing issues regarding data collection and interventions
T7 (Clients)	• Financial literacy expanded • Importance of money management to recovery

during data collection (Waltz et al., 2015). Using ERIC allows comparison of the results of this study with those of other studies of IS approaches to building recovery capital in the context of SRADs in different locations and circumstances.

RESULTS

Based on the issues identified in the needs assessment and the themes and theoretical constructs identified in the iterative qualitative analysis (Figure 2), we developed a nested-system model of the client (Figure 3), identified multiple strategies to strengthen future implementation (Table 1), and developed a logic model of change for financial capability building to inform future interventions (Table 2). The ability to assess client knowledge and status accurately is essential for (a) developing interventions, (b) planning for implementation, and (c) assessing impact following an intervention in order to develop future interventions. As such, our initial results focus on identifying strategies to develop an effective financial skills intervention as indicated in the research questions.

Nested-System Model of the Client

Based on the needs assessment data collected through the intake survey (T1) and money management survey (T7) (Jones-Sanpei & Nance, 2020), we developed a nested-system model (Figure 3) illustrating the clients' context of access to treatment and resources through DDAPT services and to financial services in the larger community.

FIGURE 3. Nested-System Model

TABLE 1. Qualitative Analysis Themes Contributing to Intervention Mapping Components

General Themes	Specific Themes	IntMap Components	Impact From Qualitative Work
Language	"Debit cards" include prepaid retail and bank cards. • "I bought a debit card from Walmart." • "I have a debit card from my bank."	Conceptual/ theoretical structure	Debit card language provided an empirical foundation for financial capability interventions, informing intervention content and format (logic model of change).
		Intervention development	Clarifying language around debit cards informed discussions of prepaid versus bank cards.
		Research design	Additional specificity in data collection regarding financial transaction cards.
	Money management language rather than financial literacy or financial capacity. • "Clients don't understand what we're talking about with 'financial literacy.' 'Money management' they can relate to, though."	Conceptual/ theoretical structure	Money management language provided an empirical foundation for financial capability interventions, informing intervention content and format (logic model of change).
		Intervention development	Revised data collection framing and language to emphasize money management skills rather than financial literacy.
		Research design	Evidence regarding face validity, or apparent effectiveness, and intervention acceptability.
Trust	Client response to surveys. • "Why do you need to know whether I have a bank account?"	Intervention development	Informed intervention development and client/staff financial discussions.
		Research design	Provided evidence for research validity.
		Data collection timing	Informed timing of data collection, recommending data collection after establishing trust.
		Intervention timing	Informed timing of potential financial capability interventions.
	Case manager response to research, data collection, intervention discussions.	Research design	Modified research design to facilitate staff participation.
		Data collection timing	Modified data collection timing based on qualitative feedback from clients and staff.
Timing	Months into treatment.	Data collection timing	Established staff-client trust necessary for conducting successful data collection.
	General outpatient level of treatment.	Intervention timing	Identified client mental functioning necessary for conducting a successful financial capability intervention.

Implementation Strategies

In treatment for SRADs, it is necessary to begin where clients are with respect to their context, such as language use and comfort level with staff and treatment institutions (Hepworth et al., 2017). The client's context is where all treatment begins. The importance of tailoring the language used to discuss financial capability with clients and staff, and of adapting the timing of data collection and interventions, was highlighted in interviews and field notes (Table 1).

Understanding the Impact of Language Choice

Narratives shared by staff about client perceptions of research goals, clients' daily economic functioning, relationships between case managers and clients, and a growing awareness on the part of both staff and clients of the importance of money management skills to long-term recovery enriched our understanding of the themes. For example, one theme emerging from the intake survey (T1) and initial staff focus group (T2) was confusion about the differences between prepaid cards and debit cards attached to a bank account, among other cards (Table 1). For example, clients used the term "debit card" to refer to any card used for financial transactions, including the state's electronic benefits transfer (EBT) card. Focus group discussions with case managers (T4, T6) also highlighted the importance of language. Case managers and staff reported that clients were more receptive to discussions when the topic was described as "money management" rather than "financial capability building," "financial literacy," or even "banking." Case managers reported that clients were more likely to understand the intent of data collection and intervention discussions when surveys and case managers used money management language.

Understanding the Impact of Timing on Data Collection and Interventions

Clinical staff suspected that the timing and method of gathering financial data were a cause of avoidance (T2, T4, T6), reporting that clients mandated into treatment are often motivated to "fake good" initially when they may be looking for the least intrusive path to treatment completion. Since intake data were gathered electronically (T1), clients could avoid answering questions. Follow-up surveys (T3, T7) conducted by clinicians after several months of treatment had response rates of over 90%, suggesting that delayed survey data collection might allow clients to develop trust with clinical staff and an understanding of the programmatic intent to advance money management skills (Table 1). During the first case manager focus group (T4), staff suggested that clients might be more likely to answer survey questions if case managers asked the questions and entered data directly into the electronic database. From the case managers' perspective, this process would have two benefits. First, the completion rate would be higher because case managers could explain the goal of improving money management skills. The second projected benefit was to prompt money management discussions between case managers and clients to learn about clients' skills and potential topics to discuss in group therapy sessions.

Building Stakeholder Trust

Over 30% of clients at intake refused to answer questions dealing with personal financial information specifically related to bank accounts, suggesting low trust and suspicion regarding motives. Staff reported in focus groups (T2, T4, T6) that clients were concerned about a hidden agenda beyond the goal of developing interventions that target financial capability building (Figure 2). Key client concerns were account garnishment and institutional efforts to validate self-reported income, which determined sliding-scale fees. Addressing these client concerns requires strengthening relationships between clients and staff.

Training and Educating Stakeholders

Another theme confounding data collection involved the participation of clinical staff tasked with initiating and performing assessment interviews. Case managers were reluctant to ask clients about financial issues. While the authors made multiple attempts to encourage staff to initiate data collection surveys and financial discussions with clients, we saw little progress prior to the case manager focus group (T4). We found that building trust with the clinical staff and actively involving them in the iterative IntMap process was key to their active engagement in data collection and intervention development.

Logic Model of Change

The second step of the IntMap framework resulted in a logic model of change (Table 2) that built on the logic model of the problem (Figure 3) and the needs assessment. In the previously reported needs assessment, the authors found that 50% of clients with SRADs did not have access to traditional

TABLE 2. Logic Model of Change

Resources	**Clients**	**Organization**	**Community**
	• Creativity • Practical knowledge	• Staff knowledge • Staff practical experience • Access to Recovery program • Peer-group therapy	• Consumer Financial Protection Bureau • Bank/credit union staff knowledge • Targeted financial tools
Rationale	**Needs Assessment**	**Potential Determinants**	**Potential Tasks**
	• Over 50% of clients are unbanked. • Over 70% of unbanked clients are using cash, prepaid debit cards, and/or money orders. • Over 75% of clients agree that money management is important to recovery. • Client average financial literacy scores are significantly lower than national and state averages.	• Low financial literacy (knowledge) • Low financial capability skills (practices) • Low trust in financial institutions • Low self-efficacy/confidence in financial capability • Perceived barriers to managing finances	• Client financial literacy education • Opportunities for clients to practice money management skills • Staff training • Peer-support development
Outcomes	**Learning Objectives**	**Performance Objectives**	**Final Outcomes**
	• Financial capability knowledge • Financial capability skills	• Stablize financial functioning • Practice financial capability skills • Engage in intentional financial decision making	• Increased financial capability • Increased self-confidence • Recovery capital

financial services, and over 70% of those clients without bank accounts used cash, prepaid debit cards, or money orders for essentials (Jones-Sanpei & Nance, 2020). Clients' average financial literacy on multiple measures was significantly lower than national and state averages, and over 75% of clients agreed or strongly agreed with the statement that money management was important to their recovery (Table 2). Building on the needs assessment and the nested-system model, the logic model of change specifies the desired learning and performance objectives for clients and those responsible for making changes to the treatment environment (Fernandez et al., 2019). With the goals of developing financial capability knowledge and skills, the logic model of change first clarifies the resources available for possible interventions at each level of the system (Figure 3). Second, it describes the rationale of the needs assessment, the potential determinants or causal factors influencing the outcomes, and the potential tasks of possible interventions. Third, it describes the outcomes of interest at each level of the system. Overall, the logic model of change reflects the resources available and the rationale connecting those resources to the programmatic learning and performance objectives.

Identifying Available Resources

Client, organizational staff, and community resources are available to support the programmatic goal of developing financial capability (Table 2). Client and staff resources include practical knowledge and

experiences, as well as programmatic and community resources such as the Consumer Financial Protection Bureau (n.d.). Local banks and credit unions may also provide training materials and staff with specialized knowledge. For example, in partnership with a local bank, we sponsored financial literacy classes for a group of clients (T5), whose response was overwhelmingly positive, with particular interest in credit recovery. Additional community resources may include targeted financial tools such as limited-use credit cards.

Describing the Rationale for the Model

The rationale for the logic model of change included the needs assessment's identification of clients' financial capability, the potential determinants or rationales for those findings, and potential tasks designed to address those determinants, such as staff training and peer-support development (Table 2). Facilitating group skills and education is one of the core functions of treatment program staff. For example, among the addiction counseling competencies described by the Center for Substance Abuse Treatment (2006) are the following:

- "Recognize the social, political, economic, and cultural context within which addiction and substance abuse exist, including risk and resiliency factors that characterize individuals and groups and their living environments." (p. 9)
- "Facilitate the development of basic and life skills associated with recovery." (p. 108)
- "Teach life skills, including but not limited to stress management, relaxation, communication, assertiveness, and refusal skills." (p. 137)

Describing the Outcomes of Interest

Client learning objectives of the logic model of change focus on increasing clients' knowledge of and skills in developing financial capability (Table 2). Researchers and treatment staff determined that the initial performance objective would be to stabilize clients' current financial functioning—usually taking place in a cash economy in which prepaid debit cards and money orders are used for financial transactions. Preliminary explorations found that maintaining an updated, comprehensive list of local providers of prepaid cards would be impractical. However, clients proved to be a good source of information regarding how to navigate the local environment of nontraditional financial transactions. Additional performance objectives include identifying opportunities to practice financial capability skills such as budgeting, purposeful saving, and intentional financial decision making. Timing of performance objectives will vary as clients are encouraged and facilitated in first stabilizing their financial functioning and then in developing personal financial capability. Final outcomes of the logic model of change include increased financial capability, client self-confidence, and recovery capital. Increased financial capability and client self-confidence with respect to financial decision making are the key outcomes of interest.

DISCUSSION

The qualitative analysis and IntMap process resulted in key findings with respect to the three research questions posed by the authors.

The first research question asked about the barriers faced by case managers and researchers in learning about the financial capability of clients with SRADs. While there are several barriers, as indicated in Table 1, they can be grouped under language, trust, and timing. For example, the intentional use of language such as "debit cards" and "money management" influences both clients' understanding of and their receptivity to data collection and interventions. The importance of developing trust is another key finding, suggesting that the strategic timing of data collection and interventions is essential.

The second research question involved recommendations for incorporating financial capability training into existing treatment protocols. Clients and case managers recognize the importance of financial capability training for clients expected to manage their own finances. The findings with respect to developing trust and timing suggest that primary data collection should occur after establishing staff-client trust and that interventions should be planned during the general outpatient level of treatment, rather than during detox or intensive inpatient treatment.

Summarizing the findings regarding information gathering and synthesis, we theorize that the process of collecting data and implementing financial capacity-building interventions would be improved if four conditions were changed:

- Language used with clients focuses on "money management skills" rather than "banking" or the more academic terms "financial capability building" or "financial literacy."

- Data collection is delayed until a therapeutic alliance between client and clinical staff has been established.
- Survey questions are asked and recorded by clinical staff rather than clients.
- Clinical staff are involved with study design and survey development.

Finally, the third research question asked about community resources available for potential interventions. Clients themselves can provide peer support and information regarding community resources available to individuals who do not have access to financial institutions. In addition, both the federal Consumer Financial Protection Bureau and local banks and credit unions can serve as resources for interventions that address credit recovery and money management skills. The Consumer Financial Protection Bureau (n.d.) provides programmatic resources to supplement case managers' practical knowledge and experiences, while local banks and credit unions can supply training materials and staff with specialized knowledge.

LIMITATIONS

One of the limitations of this study is its location in a single, relatively homogenous county in the United States. While the participant demographics were representative of the county in which the data were collected, the county residents are over 80% non-Hispanic White persons (U.S. Census Bureau, 2022). The findings of this qualitative study are likely to be applicable to other institutions providing SRAD treatment; however, research in other geographies is needed to confirm this.

Another limitation is the inability to assess the differences between justice-involved SRAD clients and non-justice-involved SRAD clients. The majority of the client respondents in this research were justice involved, and while both populations share the need to develop financial capability, there may be differences between them that future research could identify.

IMPLICATIONS FOR PRACTICE AND POLICY

Previous research has shown the importance of financial capability in SRAD treatment and recovery (Beaulieu et al., 2023; Knight et al., 2022). Clients in drug treatment courts need the support of team members in developing their financial capability as an essential part of sustaining long-term recovery. The insights on language, timing, and staff involvement described in the results strengthen the ability of future financial capability programs to successfully address barriers to developing and implementing interventions in SRAD treatment programs that support drug treatment court clients.

One primary finding of this study is that while clients with SRADs are very interested in strengthening their financial capabilities, carefully designed data collections and interventions are necessary to support them in doing so. Using the IntMap framework to work iteratively with staff, clients, and community members, we explored the process of developing financial management interventions, resulting in several key findings. First, strategic data collection with respect to both timing during treatment and content is necessary for such a sensitive topic. Second, language matters, and clients responded better to data collection and discussions when the term "money management skills" was used, rather than "financial literacy" or "financial capability." Third, poor buy-in by treatment staff confirmed the need to involve clinical and program staff in planning and developing interventions (Fernandez et al., 2019). We found that involving staff in the iterative research process increased their engagement and subsequent client engagement. Fourth, clients come to treatment in different personal financial circumstances and therefore need appropriately tailored interventions. Some clients need stabilization in a cash economy, others need guidance in credit recovery, and others may benefit from financial counseling by professional bankers in partnership with community banks. In other words, we found that effective interventions require developing trust over time with both clients and staff, using client-preferred language, working with treatment staff to develop interventions, and meeting clients where they are. Research on implementing evidence-based practices in SRAD treatment similarly strategizes relationship building and adaptive contexts (Crable et al., 2022) as well as recognizing the "multi-level nature of service delivery in which multiple actors/agents are nested and function synergistically within and between organizations, systems, and the broader environmental contexts" (Knight et al., 2022, p. 3).

The timing of financial capability-building interventions during treatment for SRADs is crucial. Clients were suspicious of researchers' motives when faced with financial questions at intake.

Many clients knew exactly how much they had in their bank accounts (if they had one) and were concerned that their accounts would be garnished, which may lead to fines impacting their ability to meet basic financial needs. They were also aware of the best nonbank financial services available in the community and strategies for avoiding payday lenders. Most clients wanted to honor their financial obligations while maintaining control over their finances to ensure their personal survival. As shown by this study, attentive timing of data collection and interventions is essential. We recommend implementing financial capability interventions for clients with SRADs who are in treatment programs at the ASAM general outpatient level of care, as discussed previously.

From a community outreach perspective, drug treatment court teams should involve local financial institutions to help them understand how they might adapt their training materials and account policies to include clients demonstrating a commitment to recovery. By working with a local bank to modify preexisting training materials for this unique population and provide an opportunity for it to fulfill its community service responsibilities under the Community Reinvestment Act[2] mandate, we demonstrated another approach to financial literacy training that has the potential to increase community outreach. Often, individuals in recovery will respond to opportunities such as being able to open a bank account with behavior that has been described as "weller than well," meaning that their fiscal habits may be more responsible than those of the average citizen.

CONCLUSIONS

Financial capability is a key part of recovery for individuals with SRADs. Using an IntMap strategy and working iteratively with staff, clients, and community members, we completed the initial steps of developing an intervention to build financial capability among clients in treatment. Qualitative data supported development of a conceptual framework for financial capability-building interventions, specific findings with respect to data collection and timing, and opportunities for community partnerships. Treatment interventions are a core part of the tools treatment programs use to effect change in individuals with SRADs, and this paper describes specific findings from the initial cycles of developing interventions to help clients with SRADs develop financial capability. Clients with SRADs recognize their need for financial recovery capital. Targeted financial capability training in credit recovery, general financial literacy, and specific money management skills will contribute to the financial recovery capital of individuals in treatment for SRADs and sustain their long-term recovery.

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2 The Community Reinvestment Act of 1977 (12 U.S.C. 2901) requires banks to affirmatively meet the credit needs of their local communities. In addition to banking services such as lending and investments, the act mandates a service component for large banks with assets over $1.252 billion (Board of Governors of the Federal Reserve System, 2018).

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- This study was submitted for institutional review board approval in 2017. The research was determined to be quality improvement—evaluating and improving services available to clients with SRADs—not human subjects research.
- The authors have no conflicts of interest to report.

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RESEARCH REPORT

Improvements in Recovery Capital Within the Context of Adult Drug Court With Parallel Peer Support Services: A 6-Month Post-Enrollment Study

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ABSTRACT

Objective

There is a need to better understand the relationships among peer recovery support and recovery capital and their impacts on treatment outcomes and long-term recovery for justice-involved individuals. This study sought to understand the impact of a combined adult drug court and peer recovery services program on recovery capital for justice-involved individuals with substance use disorder.

Method

This study was a secondary data analysis via evaluation record review of a sample cohort of 63 adults in a combined drug court and peer recovery support services program. We examined the extent of changes in participants' recovery capital after 6 months of concurrent interventions. We also considered participant characteristics theorized to affect long-term recovery, such as learned helplessness, mental health symptoms, and adverse childhood experiences. Additionally, dose data, such as the number of referrals provided, and demographic data were analyzed in our comparative logistic regression model analysis.

Results

The *t* test and logistic regression analysis both indicate considerable increases in recovery capital over the time spent in the program. Individuals were 6 times more likely to have high recovery capital at the 6-month follow-up compared to when they entered the program. Similarly, improvements in the severity of mental health symptoms from intake to follow-up were significant, although the effects were small. Learned helplessness and gender were also significant predictors of recovery capital gains from intake to follow-up.

Conclusion

The findings of this study suggest that combining adult drug court and peer recovery support services may lead to notable gains in recovery capital among justice-involved individuals with substance use disorder, thus contributing to long-term recovery. Further, such a combination may predict successful remission after one year. Findings also suggest that strategies designed to decrease learned helplessness and promote agency may contribute to gains in recovery capital and attenuate known effects of behavioral health symptomology and adverse childhood experiences.

Keywords: Drug court, treatment court, recovery capital, learned helplessness, trauma, mental health, peer support services

INTRODUCTION

To better understand what contributes to long-term recovery for justice-involved individuals with substance use disorder (SUD), the current study examines the effect that a combination program of both adult drug court and peer recovery support services has on recovery capital.

In this paper, we discuss how a county drug court in the mid-South has effectively applied peer-based recovery support services, a strategy known to enhance recovery capital and facilitate long-term recovery for justice-involved individuals with a history of substance use (Ashford et al., 2021).

Among this population, we explored the effect of length of time in the program on clients' recovery capital. More specifically, we found that recovery capital increased significantly after 6 months of participation in the program. We also examined multiple factors hypothesized to predict low recovery capital, such as learned helplessness, mental health symptomology, and adverse childhood experiences. Logistic regression models suggest that when learned helplessness is accounted for in the model, mental health symptomology and adverse childhood experiences are not significant factors contributing to increases in recovery capital. Similarly, our analysis of the number of referrals (dose data) and demographic data found that beyond learned helplessness, gender is the only significant predictor adding to better model fit. Specifically, female participants were more likely to have significant increases in recovery capital. These findings can contribute to trauma-informed, evidence-based programming for drug court populations using peer recovery support services.

BACKGROUND: DEVELOPMENT OF TREATMENT COURTS AS PART OF JUSTICE REFORM

People with SUD and co-occurring mental health disorders are overrepresented in the justice system (Bronson & Berzofsky, 2017; Bronson et al., 2017; Chandler et al., 2009; Prins, 2014). Estimates show that 60% of people within the justice system meet the criteria for an SUD (National Research Council, 2014), and 20% were under the influence of drugs or alcohol at the time of their crime, even if they don't meet the criteria for an SUD diagnosis (National Institute on Drug Abuse, 2020). Most incarcerated people with SUDs do not receive treatment during incarceration. One large federal report indicates that only 28% of people in prison with SUD and 22% of people in jail with SUD participated in any substance use treatment while incarcerated (Bronson et al., 2017).

As an effort to not only address crime but also to treat SUD and co-occurring conditions, treatment courts were created to bring about long-term recovery in the justice-involved population (Belenko, 2001; Goldkamp et al., 2001; Nolan, 2002). Since the first drug court was started in Miami-Dade County, Florida, in 1989, their number has expanded to approximately 4,000 treatment courts in the United States, including juvenile treatment courts, impaired driving treatment courts, family treatment courts, mental health courts, veterans treatment courts, and tribal healing to wellness courts (Office of Justice Programs, 2024). As an alternative to incarceration, treatment court programs have been shown to be successful in rehabilitative aspects like reducing crime and criminal behavior (and increasing commitments to nondefiant behavior), reducing recidivism and family conflict (and improving job and home stability), and increasing physical and mental well-being and education levels (Banks & Gottfredson, 2004). More recently, attention has been given to the importance of increasing social supports and motivation for change among treatment court participants as a means of achieving more long-lasting outcomes such as sobriety and improved mental health (Gallagher et al., 2018).

PEER RECOVERY SUPPORT SERVICES

The use of peer recovery support services within treatment courts has been shown to hold promise in promoting and sustaining recovery through the building of recovery capital and support services (Belenko et al., 2021; National Judicial Task Force to Examine State Courts' Response to Mental Illness, 2022). People with similar lived experiences are an effective support system for those in treatment and recovery (Substance Abuse and Mental Health Services Administration [SAMHSA], 2023). Peer support has taken the form of support groups and self-help groups, and especially since the 1970s, value has been placed on the peer support model and on those with lived experience with mental health disorders or SUDs (Davidson et al., 2006). Since the early 2000s, peer recovery support services within the treatment and legal arenas have become more defined and operationalized (Myrick & del Vecchio, 2016). In 2015, SAMHSA led the effort to bring together national experts to develop definitions of the roles and responsibilities of peer recovery support within the justice system and to create core competencies (SAMHSA, 2023).

A peer recovery specialist (PRS) is a person with lived experience who has been trained through a state certification process to support those who struggle with mental health or SUD. PRSs are also called peer support specialists, peer specialists, peer recovery coaches, peer mentors, or peer navigators.

Although there are core competencies for PRSs, certification programs vary from state to state. Arkansas, the state that this study was conducted in, has a robust certification system.

In Arkansas, the peer certification process has three levels: Arkansas Core Peer Recovery Specialist (PRS), Arkansas Advanced Peer Recovery Specialist (APR), and Arkansas Peer Recovery Peer Supervisor (PRPS; Arkansas Department of Health, n.d.). To be eligible to apply to become a PRS in Arkansas, an individual must meet stringent requirements, including educational and criminal history requirements, in addition to a 2-year minimum of abstinence-based recovery. The first step is to apply to be a peer in training (PIT). Once accepted, the individual must complete a 30-hour core training, and then supervision with a PRPS will begin. A PIT must complete 16 hours of continuing education, 500 experience hours, and 25 domain-specific peer supervision hours to be eligible to sit for the PRS exam.

Peer Recovery Support Services Within Treatment Courts

Although peer recovery support services within treatment courts have not been thoroughly studied and evaluated, they have been shown to hold promise in promoting and sustaining recovery through the building of recovery capital and support (Belenko et al., 2021; National Center for State Courts Judicial Task Force to Examine State Courts' Response to Mental Illness, 2022; van Wormer et al., 2023). Overall, the current published evaluations of peer recovery support services within treatment court settings demonstrate that these services can improve outcomes for clients; limited randomized control trials, however, have indicated weaker evidence for improved outcomes. The variation in peer recovery intervention structure across programs highlights the need for more research around best practices and standardization (Belenko et al., 2021; Gesser et al., 2022; van Wormer et al., 2023). Reif et al. (2014) conducted a large review of peer recovery support services within substance use treatment and mental health treatment between 1995 and 2012 and found that these services demonstrated positive outcomes such as reduced return-to-use rates, increased treatment retention, improved relationships with treatment providers and social supports, and increased satisfaction. However, they also found methodological concerns such as the inability to distinguish the effects of the peer recovery support services from those of the other recovery interventions, small samples, and a lack of consistency in outcomes and definitions.

Interventions that include peer recovery support services in service delivery have shown success within treatment court settings. For example, Maintaining Independence and Sobriety Through Systems Integration, Outreach, and Networking –Criminal Justice (MISSION-CJ) has shown promising outcomes in both mental health courts and adult drug courts in urban as well as rural settings (Pinals et al., 2019; Shaffer et al., 2022; Smelson et al., 2019). Examples of MISSION-CJ outcome improvements for treatment court clients include decreases in nights of incarceration, behavioral symptoms, and illicit drug use and increases in employment and housing stability.

In 2021, van Wormer et al. (2023) surveyed almost half (45%) of adult drug courts across the United States to gather information on how peers are being used in the programs. Nearly half of the courts surveyed had one or more PRSs serving their clients. The survey responses showed that peer recovery support services are widely provided and are expanding within the adult drug court setting. Other key takeaways included the importance of formal certification for PRS positions, which should be considered a foundational practice. Additionally, they found variations in the setup and structure of peer recovery support services; for example, in some drug courts, PRS positions were employed as court staff, while in others they were part of an outside layer of wraparound services. This structural inconsistency made it difficult to measure fidelity.

Peer Recovery Support Services Promote Recovery Capital

Recovery capital originated from the concept of social capital (Irvine, 2001). According to the Comprehensive Opioid, Stimulant, and Substance Abuse Program (COSSAP; 2020) housed under the Bureau of Justice Assistance (BJA), using recovery capital as a basis for a recovery plan is a "strengths-based approach [which] focuses on assets as a fulcrum from which to build while generating self-esteem and self-efficacy" (p. 2). Federal agencies like SAMHSA and BJA describe recovery capital as a combination of internal and external assets that better equip people to sustain

long-term recovery from alcohol and drugs. BJA describes internal recovery capital as consisting of both tangible assets, like job stability and a bank account, and intangible assets, such as the psychological ability to use coping skills or take responsibility. External recovery capital refers to social networks such as family or support groups as well as qualities with a wider scope, like community service or citizenship.

Building recovery capital is one of the primary goals of peer recovery support services. Peer specialists work with people in all stages of recovery, including those currently in treatment for SUD in various settings, to support them in building their internal resources and skills as well as their external environment to best support long-term recovery (COSSAP, 2020). Peer recovery support services delivered through community organizations have been shown to significantly improve recovery capital for clients (Ashford et al., 2021). However, more research is needed to explore how recovery capital can be improved for individuals in treatment courts who receive peer recovery support services and the associated factors.

MEASURING RECOVERY CAPITAL WITHIN TREATMENT COURTS

Incorporating recovery capital into more standard outcomes of treatment courts is important because it underscores the nonlinear journey of recovery. In addition to the traditional outcomes like graduation rate or recidivism rates, improvements or declines in recovery capital can shed light on the recovery process, which is dynamic and includes not only positive asset building but also difficult parts of the journey (Patton et al., 2022). However, research into whether treatment courts are successful in increasing recovery capital has not produced consistent findings, likely because this metric is relatively new and because of differences in the way it is measured. Systematic reviews of recovery capital in 2017 (Hennessy, 2017) and again in 2022 (Best & Hennessy, 2022), with the intention of reviewing the progress of using recovery capital as a metric for recovery gains, identified a need for more rigorous and systematic use of the metric. In addition, the reviews found that efforts to quantify recovery capital haven't been accepted throughout the research community. Further, Ashford et al. (2019) highlighted the limited consensus on an operational definition of recovery.

The development of recovery capital questionnaires has contributed to the consistency of measurements (Bunaciu et al., 2024). Certain questionnaires have been shown to be both generally valid and reliable measures of recovery capital like the Assessment of Recovery Capital and the Brief Assessment of Recovery Capital (BARC-10; Arndt et al., 2017; Basu et al., 2019; Sión et al., 2022; Vilsaint et al., 2017).

POTENTIAL FACTORS ASSOCIATED WITH RECOVERY CAPITAL

Childhood Adversity in SUD Treatment and Health Outcomes

The connection between childhood adversity and later negative health outcomes is well established (Felitti, 2009; Felitti et al., 2019; Hughes et al., 2017). Poor physical and mental health outcomes follow exposure to childhood adversity, and this relationship is dose dependent, meaning the more severe the childhood adversity, the more severe the later negative health and social outcomes (Felitti, 2009; Felitti et al., 2019; Hughes et al., 2017). The Strengthening Families Protective Factors Framework from the Center for the Study of Social Policy (n.d.) describes five widely accepted factors that can protect against the negative effects of childhood adversity: knowledge of parenting and youth development, parental resilience, social connections, concrete support for parents, and social and emotional competence of children. The goals of building recovery capital and the goals of building protective factors overlap in their aims of resilience, social support, and social emotional competence and skill building.

A high level of recovery capital appears to be a protective factor against the negative effects of childhood adversity on mental health functioning. For example, Cheong et al. (2017) found that more severe exposure to childhood trauma, meaning higher scores on the Adverse Childhood Experiences (ACE) assessment, is associated with higher odds of later-life symptoms of depression, but that these depressive symptoms are mediated by stronger social support. Similar findings were reported in other settings such as domestic violence shelters. In a randomized control design, Constantino et al. (2005) found that symptoms of psychological distress were alleviated by using a social support intervention, therefore building protection against trauma and other mental health symptoms. Strong social support is one of the primary pillars of external recovery capital, so these studies suggest that by bolstering recovery

capital within these populations, the building of recovery capital among clients can be protective and can mediate negative outcomes.

Learned Helplessness and Recovery From SUD

Learned helplessness is a type of response that develops with continued exposure to overwhelming stressors and can be applicable to individuals living with chronic disease, chronic pain, or SUD. It was originally proposed by Maier and Seligman (1976) as a feeling of helplessness in controlling one's own behavior and in avoiding negative situations. Maier and Seligman describe three areas of learned helplessness: (a) motivation/motor, which describes the struggle to initiate or maintain physical motivation; (b) cognitive, which describes the struggle to learn new ways to cope with stress; and (c) emotion, which describes the inability to manage emotional hardship (Yessick & Salomons, 2022).

Some things known to trigger learned helplessness-style behavior within SUD are feelings of lack of control or lack of predictability, or that goals seem too unrealistic. There is an attempt within the design of treatment courts to avoid a learned helplessness response (Marlowe & Wong, 2008). Specifically, the second edition of the *Adult Treatment Court Best Practice Standards* (All Rise, 2024) details how treatment courts can differentiate between short-term goals (proximal goals) and longer-term goals (distal goals), a distinction designed to support clients' sense of control, abilities, and self-efficacy. Additionally, the phasing system of treatment courts is designed to support clients' confidence and independence as they move further into their recovery. Similarly, it is presumed that peer recovery support services within treatment court programs help clients feel more confident in their ability to follow through and reach their goals.

THE CURRENT STUDY

The previously mentioned research illustrates the incipient nature of evaluation within peer recovery support and recovery capital among justice-involved individuals with SUD and co-occurring mental health disorders. There is a need to better understand the relationships among peer recovery support, recovery capital, effects of early life trauma, and impacts on treatment outcomes and long-term recovery. In this study we (a) describe the intake characteristics, including mental health symptomology and adverse childhood experiences of participants enrolled in the project; (b) outline examples of peer services that can be provided within the BJA Peer Support Core Concepts framework in treatment courts; and (c) examine how factors such as adverse childhood experiences, learned helplessness, mental health, symptomatology, and gender contribute to improvements in recovery capital from intake to 6 months post-intake into the program. We also test the "dose" effect of process variables such as the number of referrals received via the peer recovery support program.

Analyses were developed with the knowledge that adverse childhood experiences have a direct relationship with elevated mental health symptoms in adult populations (Sartor et al., 2012) and that constructs such as social supports have been shown to reduce that effect (Gallagher et al., 2018). Similarly, learned helplessness as a result of addiction, adverse experiences, and involvement in the justice system is associated with low recovery capital (Best & Aston, 2015). What is currently lacking in the literature is the extent to which recovery capital can improve when peer support is provided as part of an adult drug court program. We aim to address this research gap in our current study by investigating how recovery capital changes when adult drug court interventions and peer recovery support services are provided concurrently. Additionally, our models consider learned helplessness, mental health symptoms, adverse childhood experiences, intervention dosage, and other client characteristics.

METHOD

Recruitment Setting and Participants

This study was a secondary data analysis via evaluation record review of a sample cohort of 63 newly accepted participants in an Arkansas adult drug court receiving peer recovery support services between December 2022 and March 2024. All cohort members had both an intake and 6-month follow-up interview and corresponding data points. The peer recovery support services were funded through a SAMHSA grant (Building Communities of Recovery, Award #1H79TI085575) which was awarded to a local nonprofit agency, Positive Energy Affecting Recovering Lives (PEARL). PEARL's mission is to provide assistance, education, and support to the treatment courts and the recovery community of Arkansas (arpearl.org).

Individuals enrolled in the drug court program with parallel peer services were adults with SUD who were justice involved, had histories of trauma,

and had an elevated need for enhanced services. Participants were provided a description of the PEARL evaluation study at the time of enrollment and were given the opportunity to decline participation. Fewer than 1% of program participants declined to participate in the evaluation data collection. Individuals were provided a nominal incentive for participating. The institutional review board determined that the study was considered not to be human subjects research.

Process Description of PEARL Peer Services

To give an overview of the practical process for integrating the peer services into the drug court program, we will discuss the timing, frequency of reaching out, and types of services provided. Within the county drug court, PRSs offer support and services within the first week of intake into drug court. Once accepted into the drug court program, clients receive an orientation from the organization that provides the peer services. They are welcomed and encouraged to engage with the PRS. PRSs provide both practical support (referrals to services, support with follow-through on goals) as well as emotional support (nonjudgmental presence and someone to share struggles and triumphs with). The day-to-day services offered include meeting with clients, goal setting, supportive conversation, and helping with follow-through on all referrals to services. PRSs are available in person, by phone, and by text.

A COSSAP publication (COSSAP, 2020) describes how PRSs use recovery capital domains to support individuals working toward long-term recovery. The PRSs build on both internal and external assets of the clients. The internal assets include both physical and human domains (see Figure 1). With the physical domain, the key question is, "What tangible assets (e.g., property, savings, job) are available to expand the participant's recovery options?" For the human domain, the key question is, "What intangible assets (e.g., skills, aspirations, personal resources) will enable the participant to flourish in recovery?" The PRS can track when certain activities or discussions were touched on during a meeting with a client in order to build and encourage these within the client. The activities include empathy (validate experiences and feelings, encourage exploration and pursuit of goals, convey hope about recovery, and celebrate efforts and accomplishments) and healthy recovery and coping skills support (education about health, recovery, coaching in desired skills and strategies, role-playing strategies, and verifying step-taking and using the skills).

The external assets include social and cultural domains (see Figure 2). The key question for the social domain is, "What kinds of support are available from family, social networks, and community affiliations?" For this domain, the value is in the meetings with the PRS. This domain emphasizes the "learning-from" and the "leaning-on" of the social networks. The key question for the cultural domain is, "What network of values, principles, beliefs, and attitudes will serve to support the participant's recovery?"

FIGURE 1. Internal Recovery Capital Domains: How Peer Recovery Services Build Recovery Capital

Internal Recovery Capital Domains

Physical Assets	Human Assets
KEY QUESTION What tangible assets (property, savings, job) are available to expand the participant's recovery options?	**KEY QUESTION** What intangible assets (skills, aspirations, personal resources) will enable the participant to flourish in recovery?
EXAMPLES Savings Personal property Home/housing Global psychological health Global physical health	**EXAMPLES** Skills/talents Education Aspirations Risk taking Recovery experiences Financial responsibility Coping/life functioning Spiritual/emotional health
HOW PEER RECOVERY SPECIALISTS BUILD THESE ASSETS **Social support services provided:** Food pantry Diapers and wipes Clothing vouchers Computer lab usage Client-assist loans **Referrals and linkages to services:** Behavioral health/treatment Medical health provider SUD medication provider Transportation Public assistance/disability Legal aid	**HOW PEER RECOVERY SPECIALISTS BUILD THESE ASSETS** **Empathy and connection with clients:** Validate experiences and feelings Encourage exploration and pursuit of goals Convey hope about recovery Celebrate efforts and accomplishments **Healthy recovery and coping skills support:** Education about health and recovery Coaching in desired skills/ strategies Role-play strategies Verify steps taken

MEASURES

Brief Assessment of Recovery Capital

The BARC-10 was used to measure participants' level of recovery capital (Vilsaint et al., 2017). The BARC-10 is cited as having high internal consistency ($\alpha = 0.90$), and the current study shows a similar level of internal consistency at intake ($\alpha = 0.85$) and at the 6-month follow-up ($\alpha = 0.82$). The BARC-10 consists of 10 items that, when summed together, range from 10 to 60 and create the participant's overall recovery capital score (a continuous variable used for pre- and post-intervention analysis). For the purposes of the logistic regression analysis, the BARC-10 was dichotomized into two groups. The first group consists of those with a score of 47 or above, which has been found to predict sustained remission after one year, and the second group consists of those who scored 46 or below, who are more likely to return to use during the first year of recovery.

FIGURE 2. External Recovery Capital Domains: How Peer Recovery Services Build Recovery Capital

External Recovery Capital Domains

Social Assets	Cultural Assets
KEY QUESTION What kinds of support are available from family, social networks, and community affiliations?	**KEY QUESTION** What network of values, principles, beliefs, and attitudes will serve to support the participant's recovery?
EXAMPLES Family/kinship networks Friendships Support groups Community recovery/ 12-step programs	**EXAMPLES** Access to cultural activities Belief systems/rituals Meaningful activities Citizenship/community involvement Connection to purpose
HOW PEER RECOVERY SPECIALISTS BUILD THESE ASSETS **Referrals and linkages to services:** Parenting support Peer-led groups Direct and ongoing meetings with PRS	**HOW PEER RECOVERY SPECIALISTS BUILD THESE ASSETS** **Referrals and linkages to services:** Support groups/community recovery 12-step programs Religious support

Time Effect (6 Months in Program)

The data consist of two time points, intake and a 6-month follow-up interview. For the logistic regression, time is measured as a binary variable, with the intake being the reference group (intake = 0) and the 6-month follow-up coded as a 1, so that we can see the effect time has on the outcome variable.

Brief Symptom Inventory 18

The Brief Symptom Inventory 18 (BSI-18) is a self-report measure used to screen for psychological distress and psychiatric disorders. The BSI-18 is a reduced measure from the 53-item Brief Symptom Inventory (Derogatis & Melisaratos, 1983) and consists of 18 items summed to create a total score, the Global Severity Index (GSI), which represents the participant's overall psychopathological status (Derogatis, 1992). Each item ranges from 0 (Not at All) to 4 (Extremely) on a 5-point Likert-type scale. The total score ranges from 0 to 72. The BSI-18 consists of three subscales, Somatization, Depression, and Anxiety, consisting of 6 items each. In the current study, the overall internal consistency of all 18 items is high at both intake ($\alpha = 0.92$) and the 6-month follow-up ($\alpha = 0.93$).

Adverse Childhood Experiences Survey

The ACE survey is a retrospective measure that was used to get a count of the number of traumatic events participants experienced before the age of 18 (Felitti et al., 2019). The survey consists of 10 items scored as being either present or not and summed to create an overall count of adverse childhood experiences. In the current study, the survey has high internal consistency ($\alpha = 0.92$).

Chronic Disease Helplessness Survey

The Chronic Disease Helplessness Survey (CDHS) is a three-factor measure of helplessness in people who experience chronic pain. Since learned helplessness has been studied in relation to dependency and SUD, this survey is appropriate for measuring a change within SUD treatment and recovery. The CDHS captures cognitive, motivational, and emotional deficits and consists of 12 items, with response options starting at 1 (Not True) and ending at 5 (Very True). To create an overall score, the items are summed and range from 12 to 60 (Yessick & Salomons, 2022). The overall internal consistency for all 12 items is high at both intake ($\alpha = 0.84$) and 6-month follow-up ($\alpha = 0.81$).

Referrals to Services

Referrals to services are defined as the number of referrals provided to the participant by their PRS. Referrals are tracked by a secure database system, RedCap, and consist of social service referrals such as transportation, public assistance/disability, and legal aid; health and family service referrals such as behavioral health/treatment, medical health, medication for SUD, and parenting support; and community service referrals such as peer-led groups, support groups/community recovery, Alcoholics Anonymous and Medication-Assisted Recovery Anonymous, and religious support.

PROCEDURE, DATA PREPARATION, AND ANALYSIS

Data were checked for missing variables, and preliminary analyses were conducted to determine whether assumptions of multivariate normality and the shape of distributions had been met. In total, there are 134 adults enrolled in PEARL services. Enrollment in the study is ongoing; however, at the time of the analysis, 80 of the 134 adults had both an intake interview and a 6-month follow-up interview. Of those 80, 2 subjects identified as transgender and were removed, considering that gender is included in the final model and there were not enough individuals identifying as transgender to justify a third gender group. Those with missing data for the ACE survey ($n = 9$) and CDHS ($n = 6$) were also removed. The final analysis sample came to 63 adults enrolled in drug court without missing data in the key predictor variables.

For the current study, three paired *t* tests, a set of logistic regression models, and their complementary post hoc power analyses were conducted. For the paired *t* tests, one was conducted for the dependent variable (BARC-10 scale) on its continuous scale and for two of the main predictor variables. To control for the family-wise error rate (FWER), Holm's sequential Bonferroni procedure (Holm, 1979) was applied across the three paired *t* tests. Holm's method is considered to be a less conservative approach compared with the original Bonferroni procedure and involves ordering the *p* values from smallest to largest and then comparing them against a critical value, $\alpha / (m - j + 1)$, with m being the total number of tests and j being the rank of the ordered *p* value (Goeman & Solari, 2014). The adjusted *p* values can also be calculated by sorting them from smallest to largest and then multiplying each *p* value by its adjustment factor; see Goeman and Solari (2014) for the formula (p. 1956). Separately, the Benjamini-Hochberg (BH) procedure (Benjamini & Hochberg, 1995) was applied to control for the false discovery rate (FDR). Instead of focusing on the probability that a set of rejected hypotheses contains an error, e.g., FWER, the FDR focuses on the expected proportion of errors based on the set of rejected hypotheses. The BH procedure is similar in that it compares the sorted *p* values, $p_{(i)}$, to a critical value, $c_i = i\alpha/m$, where i is the rank of the *p* value and c_i is the critical value for rank i. Then the *p* value with the highest rank whose value is smaller than the corresponding critical value is rejected along with the subsequent *p* values. So if there is a total of three tests, and the second-ranked *p* value is less than the critical value, both the first and second ranks are rejected. For both procedures, the adjusted *p* values were inspected and reported. Additionally, paired *t* tests using the pooled standard error were conducted, with their corresponding *t* and *p* values included in Table 2 but not discussed.

A set of logistic regressions was conducted to inspect the relationship between the BSI-18, the ACE survey, the CDHS, and the number of referrals on an individual's BARC-10 grouping between intake and 6-month follow-up interviews. The model fit was assessed using χ^2-statistic difference and inspecting the Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) across each model. Multicollinearity was assessed by calculating Variance Inflation Factor (VIF) values, and lastly, a post hoc power analysis was used to assess the probability that the statistical tests used correctly identify a true effect for the three paired *t* tests and the logistic regression models.

RESULTS

The study's final analysis sample included 63 adults who enrolled in PEARL services between December 2022 and March 2024. The average age of the participants was 35.44 years old ($SD = 8.35$). Of the 63 participants, 60.3% were male, 11.1% considered themselves to be Hispanic, and 77.8% considered themselves White. At enrollment, 31.8% of the sample had a vocational or technical diploma or had taken some college or university courses, and 68.3% had obtained a high school diploma or general educational development (GED) credential or did not complete high school (see Table 1).

TABLE 1. Demographic Characteristics of Study Participants Used in the Analysis at Enrollment (*N* = 63) and Independent Variable Statistics at Intake and 6-Month Follow-up

Variable	*n* (%) or *M* (*SD*)
Gender (male)	**38 (60.3%)**
Age (years)	**35.44 (8.35)**
Hispanic (yes)	**7 (11.1%)**
Race	
Black	1 (1.6%)
Asian	0 (0%)
Native Hawaiian	1 (1.6%)
Alaska Native	0 (0%)
White	49 (77.8%)
American Indian	2 (3.2%)
Biracial	4 (6.3%)
No response	6 (9.5%)
Education	
Less than 12th grade	9 (14.3%)
12th grade or GED/diploma	34 (54.0%)
Vocational/technical diploma	9 (14.3%)
Some college or university	11 (17.5%)
Bachelor's degree	0 (0.0%)
Graduate work/degree	0 (0.0%)
Other	0 (0.0%)
BARC-10	
Intake	50.32 (7.20)
46 or below	13 (20.63%)
47 or above	50 (79.37%)
6-month follow-up	53.83 (5.08)
46 or below	3 (4.76%)
47 or above	60 (95.24%)
BSI-18 score	
Intake	15.92 (12.61)
6-month follow-up	10.94 (11.66)
ACEs	**4.28 (2.65)**
CDHS score	
Intake	25.89 (8.76)
6-month follow-up	23.81 (8.38)
Number of referrals	**6.59 (8.92)**

Note. BARC-10 = Brief Assessment of Recovery Capital, BSI-18 = Brief Symptom Inventory 18, ACEs = adverse childhood experiences, CDHS = Chronic Disease Helplessness Survey.

Paired *t* Tests

Recovery Capital

Three paired *t* tests were conducted to compare the participants' BARC-10 scores, BSI-18 scores, and CDHS scores between intake and their 6-month follow-up interview.

For our dependent variable (BARC-10 scores), a paired *t* test was conducted, using its original scale from 10 to 60, to evaluate whether participants' recovery capital scores increased from intake to the 6-month follow-up point. The results indicated that participants significantly increased their BARC-10 scores from their intake interview ($M = 50.32$, $SD = 7.20$) to their 6-month follow-up interview ($M = 53.83$, $SD = 5.08$), $t(62) = 4.23$, $p < 0.001$, 95% CI [1.85, 5.17]. For both Holm's method and the BH procedure, the adjusted *p* value for BARC-10 scores between intake and their 6-month follow-up was 0.000237, demonstrating that the likelihood of the results being due to a FWER or FDR is small and that the results are unlikely to be due to random chance. See Table 2. As measured by Cohen's *d*, the effect size was $d = 0.55$, indicating a medium effect (Cohen, 1988). To determine whether our design had enough power to detect an effect, we used the program G*Power version 3.1.9.7 (Faul et al., 2007). The analysis was based on the current sample size ($N = 63$), an alpha level of 0.05, and an anticipated effect size (Cohen's *d*) of 0.53, based on the mean, the standard deviation, and the correlation between the two groups ($r = 0.47$). The post hoc power analysis revealed that the power to detect an effect in the paired *t* test was 0.99, critical $t(62) = 1.67$. The results indicate that those who participated in the program increased their recovery capital from intake to their 6-month follow-up interview (see Table 2).

Severity of Psychopathological Symptoms

For our first main predictor variable (BSI-18 scores), a paired *t* test was conducted to evaluate whether participants' overall psychopathological (GSI) scores decreased from intake to the 6-month follow-up point. The results indicated that participants' GSI scores significantly decreased from their intake interview ($M = 15.92$, $SD = 12.61$) to their 6-month follow-up interview ($M = 10.94$, $SD = 11.65$), $t(62) = -3.38$, $p < 0.01$, 95% CI [−7.94, −2.03]. For Holm's method and the BH procedure, the adjusted *p* value for BSI-18 scores between intake and their 6-month follow-up was 0.002556 and 0.001917, respectively, demonstrating that the likelihood of the results being due to a FWER or FDR is small and

TABLE 2. Comparison of Raw and Adjusted *p* Values for Paired *t* Tests Using Holm's Method and Benjamini-Hochberg Procedure

Dependent Variables	Intake Interview		6-Month Follow-up Interview		*t*(62)	*p*	Pooled *SE*	Pooled *t*(62)	Pooled *p*	Holm's Adj *p*	BH Adj *p*
	M	*SD*	*M*	*SD*							
BARC-10	50.32	7.20	53.83	5.08	4.227	0.00008	9.221	3.02	0.00367	0.00024	0.00024
BSI-18	15.92	12.61	10.94	11.65	−3.375	0.00128	9.221	−4.29	0.00006	0.00256	0.00192
CDHS	25.89	8.76	23.81	8.38	−1.915	0.06014	9.221	−1.79	0.07836	0.06014	0.06014

Note. BARC-10 = Brief Assessment of Recovery Capital, BSI-18 = Brief Symptom Inventory 18, CDHS = Chronic Disease Helplessness Survey, BH = Benjamini-Hochberg procedure.

that the results are unlikely to be due to random chance. See Table 2. The effect size, as measured by Cohen's *d*, was *d* = 0.41, indicating a small effect (Cohen, 1988). To determine whether our design had enough power to detect an effect, we used the program G*Power version 3.1.9.7 (Faul et al., 2007). The analysis was based on the current sample size (*N* = 63), an alpha level of 0.05, and an anticipated effect size (Cohen's *d*) of 0.42, based on the mean, the standard deviation, and the correlation between the two groups (*r* = 0.54). The post hoc power analysis revealed that the power to detect an effect in the paired *t* test was 0.95, critical *t*(62) = 1.67. Taken together, the results indicate that participants' overall psychopathological (GSI) score decreased from intake to their 6-month follow-up interview, but the general effect size is small.

Learned Helplessness

For our second main predictor variable (CDHS scores) a paired *t* test was conducted to evaluate whether drug court clients' learned helplessness scores decreased from intake to the 6-month follow-up point. The results indicated that participants' learned helplessness scores decreased, although not at a statistically significant level based on a $p < 0.05$, from their intake interview ($M = 25.89$, $SD = 8.76$) to their 6-month follow-up interview ($M = 23.81$, $SD = 8.38$), $t(62) = -1.92$, $p = 0.0601$, 95% CI [−4.25, 0.09]. For both Holm's method and the BH procedure, the adjusted *p* value for BARC-10 scores between intake and their 6-month follow-up was 0.0601, demonstrating that the likelihood of the results being due to FWER or FDR is small and that the results are unlikely to be due to random chance, considering that the *p* value and adjusted *p* values are identical. The fact that the *p* value and adjusted *p* value are identical is due to the nature of the calculated alpha and is common in similar methods like the Hommel method (Goeman & Solari, 2014, p. 1958). See Table 2. The effect size, as measured by Cohen's *d*, was *d* = 0.24, indicating a small effect (Cohen, 1988). To determine whether our design had enough power to detect an effect, we used the program G*Power version 3.1.9.7 (Faul et al., 2007). The analysis was based on the current sample size (*N* = 63), an alpha level of 0.05, and an anticipated effect size (Cohen's *d*) of 0.24, based on the mean, the standard deviation, and the correlation between the two groups (*r* = 0.49). The post hoc power analysis revealed that the power to detect an effect in the paired *t* test was 0.59, critical *t*(62) = 1.67. Taken together, the results indicate that participants' learned helplessness scores decreased from intake to their 6-month follow-up interview, but the decrease was not considered statistically significant.

Logistic Regression Analysis

A set of sequential logistic regressions were performed to incrementally ascertain the capability of identified factors—time effect from intake to follow-up, psychopathology (BSI-18), number of adverse childhood experiences reported, levels of helplessness (CDHS), number of referrals provided (dose), demographic variables (age and gender), education level (above a high school diploma or not), and healthcare utilization (having a primary care provider and health insurance)—to predict the likelihood that participants will have sufficient recovery capital to be successful in maintaining recovery after a year (BARC-10 > 46). The retained final model included the time, BSI-18 score, number of adverse childhood experiences, CDHS score, number of referrals, and gender.

A power analysis was conducted for this final logistic regression model using the program G*Power version 3.1.9.7 (Faul et al., 2007). The analysis was based on the analysis sample size ($N = 63$), the proportions of success at intake ($H_0 = 0.7$) and at the 6-month follow-up interview ($H_1 = 0.9$), and an alpha level of 0.05. To take into consideration the amount of variability the main predictors and covariates bring to the model, an estimated moderate association value (R^2 other X) between the covariates was set at 0.25. The post hoc power analysis revealed that the power ($1 - \beta$) to detect an effect in the logistic regression model was 0.97, critical $z(62) = 1.64$, thus indicating that our model had enough power to confidently detect an effect, given the parameters provided. Additionally, all models were assessed for multicollinearity using the VIF test. There is little concern for multicollinearity across the models, as the VIF values for the coefficients were under 5 (range from 1.01 to 4.07 among all variables across each model), which is the threshold for cause for concern (Menard, 2002). Only model B* had VIF values, which is expected when an interaction is included. See Tables 3 and 4 for sequential logistic regression coefficients for the odds ratios and log odds, respectively, Table 5 for their model fit indices, and Table 6 for VIF values.

Model A

The first model in the series consisted of including the effect of time (between intake and 6-month follow-up interviews) and the BSI-18 scores on the binary BARC-10 variable that is predictive of a drug court client having adequate recovery capital to be successful in remission after a year. The effect of time (intake to 6-month follow-up) was considered a statistically significant predictor and indicated an increase in the odds of achieving sufficient recovery capital of 336.94% for clients in the program, holding all other variables constant, $OR = 4.37$, 95% CI [1.18, 21.81], $p = 0.042$. For the second predictor, BSI-18 scores were also considered to be statistically significant, indicating a significant decrease in their recovery capital scores from intake to 6-month follow-up of 8.34%, holding all other variables constant, $OR = 0.91$, 95% CI [0.86, 0.95], $p = 0.0002$. See Model A in Table 3. To determine the predictive power of the model, the Tjur R-squared value was found to be 0.23, indicating a small association between the two predictors and the binary BARC-10 variable (Tjur, 2009).

Model B

For the second model, the same predictors were used from Model A, along with a new predictor consisting of the number of adverse childhood experiences the drug court clients reported. As with the previous model, both the effect of time (intake to 6-month follow-up), $OR = 4.29$, 95% CI [1.13, 21.87], $p = 0.0478$, and BSI-18 scores, $OR = 0.90$, 95% CI [0.85, 0.94], $p = 0.0001$, were considered statistically significant, holding all other variables constant, with an increase in the odds of achieving sufficient recovery capital of 328.58% and a decrease in BSI-18 scores of 10.26%. The new predictor, the number of adverse childhood experiences reported, did not produce a statistically significant effect, $OR = 1.25$, 95% CI [0.96, 1.69], $p = 0.1159$, but was left in the model due to the nature of the study and sample. See Model B in Table 3. The overall model fit is good, with a significant difference between the first and second models, $\Delta\chi^2 = 2.74$, $p = 0.0979$, and a decrease in the AIC and increase in the BIC, most likely due to the nature of the BIC to penalize a model with many predictors (Schwarz, 1978). Again, the Tjur R-squared value was inspected and indicated a small association between the three predictors and the binary BARC-10 variable, Tjur $R^2 = 0.26$.

An additional model (B*) was inspected, looking at the interaction of BSI-18 scores and the number of adverse childhood experiences in the model, along with the effect of time. The interaction was found not to be significant, $OR = 1.00$, 95% CI [0.98, 1.02], $p = 0.9393$, and hence was not included in subsequent models in the current study.

Model C

We then added the learned helplessness predictor (CDHS score) to the second model in the study and found a novel result. This third model showed that the effect of time (intake to 6-month follow-up) was still a significant predictor, holding all other variables constant, $OR = 5.34$, 95% CI [1.31, 29.80], $p = 0.0308$. However, when the new predictor was added to the model, the effect of the BSI-18 scores became nonsignificant, $OR = 0.96$, 95% CI [0.89, 1.04], $p = 0.2799$, but was still found to decrease the odds of achieving sufficient recovery capital by 4.13%, holding all other predictors constant. The number of adverse childhood experiences reported was still considered not to be significant, $OR = 1.21$, 95% CI [0.91, 1.67], $p = 0.2065$, but was left in the model. The new predictor, learned helplessness scores, was found to be a significant predictor when taking into consideration the other three variables and

indicated a decrease in the odds of achieving sufficient recovery capital by 13.18% as learned helplessness increases, *OR* = 0.87, 95% CI [0.77, 0.97], $p = 0.0113$. See Model C in Table 3. After adding the learned helplessness predictor to the model, we found a relatively good model fit, with a significant decrease in χ^2 value, $\Delta\chi^2 = 6.88$, $p = 0.0087$, and a decrease in both the AIC and BIC. Again, the Tjur *R*-squared value was inspected, and an increase from the previous model was observed: Tjur $R^2 = 0.33$.

Model D

The fourth model added a predictor to the prior model that indicated the number of referrals provided to the drug court client during their time in the program. Holding all other predictors constant, the addition of the number of referrals did not significantly predict the odds of achieving a sufficient amount of recovery capital found to be predictive of staying sober after a year, *OR* = 1.03, 95% CI [0.95, 1.15], $p = 0.5130$, but was left in the final model due to the nature of the study and sample. As with the previous model, the number of adverse childhood experiences was not considered a significant predictor, nor were the BSI-18 scores. The time between intake and the 6-month follow-up interview, again, was found to have the effect of increasing the odds of achieving a sufficient amount of recovery capital to remain sober by 425.89%, *OR* = 5.26, 95% CI [1.28, 29.56], $p = 0.0333$. As with the previous model, the learned helplessness predictor was statistically significant and indicated that the odds of achieving sufficient recovery capital decreased by 12.81% as learned helplessness increased, holding all other predictors constant, *OR* = 0.87, 95% CI [0.77, 0.97], $p = 0.0153$. See Model D in Table 3. The model continued to show good model fit but without a significant decrease in χ^2 value, $\Delta\chi^2 = 0.47$, $p = 0.4924$, and with a slight increase in both the AIC and BIC. Again, the Tjur *R*-squared value was inspected and remained the same as the previous model, Tjur $R^2 = 0.33$.

Model E (Identified Final Model)

The final model considered the gender of the participant. With the addition of the participant's gender, we found that the odds of achieving a sufficient amount of recovery capital increased by 3,482.94% for females compared to males, *OR* = 35.83, 95% CI [2.63, 1,256.79], $p = 0.0198$. Considering that the gender of the participants was not controlled in recruitment, this result could be due to the fact that more males (60.3%) participated in the study than females. It could also point to differences in the recovery process for males and females that warrant further investigation beyond the scope of this study. Nonetheless, it's important to mention and consider the size of the odds ratio and how it impacts the likelihood of drug court clients achieving enough recovery support, when looking at programs that promote peer support recovery. Similar to the previous models, the effect of time (intake to 6-month follow-up) and learned helplessness scores contributed to the odds of achieving that sufficient amount of recovery capital by 539.85% and 19.06%, respectively; time: *OR* = 6.40, 95% CI [1.40, 42.97], $p = 0.0029$, and CDHS: *OR* = 0.81, 95% CI [0.69, 0.92], $p = 0.0023$. The remaining predictors, BSI-18 scores, number of adverse childhood experiences reported, and number of referrals provided, continued not to be significant but remained in the model due to the nature of the study and sample. After adding gender to the model, we found a relatively good model fit, with a significant decrease in χ^2 value, $\Delta\chi^2 = 7.97$, $p = 0.0047$, and a decrease in both the AIC and BIC. Again, the Tjur *R*-squared value was inspected, and an increase from the previous model was observed: Tjur $R^2 = 0.41$.

Model F

The last model included the participant's age, whether they had a primary care provider, and their level of education, but these were not statistically significant and won't be discussed further, even though all other predictors that were significant in the final model remained significant.

DISCUSSION

This study sought to better understand the impact of a combined adult drug court and peer recovery support services program on recovery capital for justice-involved individuals with SUD. The preliminary aim of the study was to determine whether recovery capital increased with time in the program. *t* test and logistic regression analysis results were congruent in indicating that there were considerable increases in recovery capital with time in the program. Individuals were 6 times more likely to have high recovery capital at follow-up, and mean increases in recovery capital were significant in both the high and low recovery capital groups, as designated at intake. Similarly, improvements in the severity of mental health symptoms from intake to follow-up were significant, although the effects were small. While there was a notable

reduction in overall scores of learned helplessness from intake to follow-up, the results were not statistically significant. We also explored the relationship among potential predictive factors (taken as sets) such as psychopathology or symptom severity (BSI-18), learned helplessness (CDHS), adverse childhood experiences, and other demographics such as gender, age, education, and healthcare utilization and their ability to predict gains in recovery capital using sequential logistic regression.

TABLE 3. Comparison of Raw and Adjusted *p* Values for Paired *t* Tests Using Holm's Method and Benjamini-Hochberg Procedure

	A	B	B*	C	D	E (Final Model)	F
Constant	23.42*** (15.42) [7.30, 99.90]	12.36*** (9.06) [3.29, 60.56]	11.59* (12.88) [1.68, 147.17]	237.16*** (349.19) [16.42, 5,763.42]	205.13*** (302.93) [14.00, 5,023.19]	2,121.28*** (4,461.49) [59.16, 278,065.35]	7,848.33** (25,086.02) [27.91, 10,936,194.57]
Time (intake to 6-month follow-up)	4.37* (3.16) [1.18, 21.81]	4.29* (3.15) [1.13, 21.87]	4.30* (3.17) [1.13, 22.07]	5.34* (4.14) [1.31, 29.80]	5.26* (4.10) [1.28, 29.56]	6.40* (5.45) [1.40, 42.97]	7.45* (6.65) [1.53, 55.32]
BSI-18 score	0.91*** (0.02) [0.86, 0.95]	0.90*** (0.03) [0.85, 0.94]	0.90* (0.05) [0.81, 0.99]	0.96 (0.04) [0.89, 1.04]	0.96 (0.04) [0.88, 1.03]	0.94 (0.04) [0.86, 1.02]	0.95 (0.04) [0.86, 1.03]
Number of ACEs		1.25 (0.18) [0.96, 1.69]	1.27 (0.36) [0.75, 2.29]	1.21 (0.18) [0.91, 1.67]	1.18 (0.18) [0.89, 1.64]	1.19 (0.20) [0.87, 1.71]	1.20 (0.22) [0.85, 1.80]
BSI-18 score × number of ACEs			1.00 (0.01) [0.98, 1.02]				
CDHS score				0.87* (0.05) [0.77, 0.97]	0.87* (0.05) [0.77, 0.97]	0.81** (0.06) [0.69, 0.92]	0.80** (0.06) [0.68, 0.92]
Number of referrals					1.03 (0.05) [0.95, 1.15]	0.91 (0.06) [0.78, 1.04]	0.91 (0.07) [0.78, 1.04]
Female						35.83* (55.01) [2.63, 1,256.79]	31.86* (50.25) [2.21, 1,244.60]
Age (years)							0.98 (0.05) [0.89, 1.08]
Access to PCP							0.74 (0.55) [0.17, 3.29]
Education level (above a HS diploma)							0.64 (0.52) [0.13, 3.23]

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.
Note. BARC-10 = Brief Assessment of Recovery Capital, BSI-18 = Brief Symptom Inventory 18, ACEs = adverse childhood experiences, CDHS = Chronic Disease Helplessness Survey, PCP = primary care provider, HS = high school.

TABLE 4. Logistic Regression Results of Drug Court Clients' BARC-10 Cut Scores (Log Odds)

	A	B	B*	C	D	E (Final Model)	F
Constant	3.15*** (0.66) [1.99, 4.60]	2.51*** (0.73) [1.19, 4.10]	2.45* (1.11) [0.52, 4.99]	5.47*** (1.47) [2.80, 8.66]	5.32*** (1.48) [2.64, 8.52]	7.66*** (2.10) [4.08, 12.54]	8.97** (3.20) [3.33, 16.21]
Time (intake to 6-month follow-up)	1.47* (0.72) [0.16, 3.08]	1.46* (0.74) [0.12, 3.09]	1.46* (0.74) [0.12, 3.09]	1.68* (0.78) [0.27, 3.39]	1.66* (0.78) [0.25, 3.39]	1.86* (0.85) [0.33, 3.76]	2.01* (0.89) [0.42, 4.01]
BSI-18 score	−0.09*** (0.03) [−0.15, −0.05]	−0.11*** (0.03) [−0.17, −0.06]	−0.11* (0.05) [−0.22, −0.01]	−0.04 (0.04) [−0.12, 0.04]	−0.04 (0.04) [−0.12, 0.03]	−0.06 (0.04) [−0.15, 0.02]	−0.06 (0.04) [−0.15, 0.03]
Number of ACEs		0.22 (0.14) [−0.04, 0.52]	0.24 (0.28) [−0.29, 0.83]	0.19 (0.15) [−0.09, 0.51]	0.17 (0.15) [−0.12, 0.49]	0.18 (0.17) [−0.14, 0.54]	0.18 (0.18) [−0.16, 0.59]
BSI-18 score × number of ACEs			0.00 (0.01) [−0.02, 0.02]				
CDHS score				−0.14* (0.06) [−0.26, −0.04]	−0.14* (0.06) [−0.26, −0.03]	−0.21** (0.07) [−0.37, −0.09]	−0.22** (0.07) [−0.38, −0.09]
Number of referrals					0.03 (0.04) [−0.05, 0.14]	−0.10 (0.07) [−0.25, 0.04]	−0.10 (0.07) [−0.25, 0.04]
Female						3.58* (1.54) [0.97, 7.14]	3.46* (1.58) [0.79, 7.13]
Age (years)							−0.02 (0.05) [−0.12, 0.08]
Access to PCP							−0.30 (0.74) [−1.77, 1.19]
Education level (above a HS diploma)							−0.45 (0.81) [−2.06, 1.17]

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.
Note. BARC-10 = Brief Assessment of Recovery Capital, BSI-18 = Brief Symptom Inventory 18, ACEs = adverse childhood experiences, CDHS = Chronic Disease Helplessness Survey, PCP = primary care provider, HS = high school.

TABLE 5. Model Fit Indicators for Logistic Regression Models A–F

	A	B	B*[a]	C	D	E (Final Model)	F
N	63	63	63	63	63	63	63
AIC	77.43	76.69	78.69	71.81	73.34	67.37	72.58
BIC	85.94	88.04	92.87	85.99	90.36	87.22	100.94
Tjur R^2	0.23	0.26	0.26	0.33	0.33	0.41	0.43
χ^2	71.43	68.69^{+}		61.81**	61.34	53.37**	52.58

$^{+}$ $p < 0.1$. * $p < 0.05$. ** $p < 0.01$.
Note. AIC = Akaike Information Criterion, BIC = Bayesian Information Criterion.
[a] The χ^2 value for model B* was not included because it is the same value as Model B.

TABLE 6. Variance Inflation Factor for Each Variable in Logistic Regression Models A–F

Variables	A	B	B*	C	D	E (Final Model)	F
Time (intake to 6-month follow-up)	1.006	1.008	1.013	1.071	1.069	1.138	1.235
BSI-18 score	1.006	1.238	4.113	1.911	1.943	2.001	2.120
Number of ACEs		1.228	4.879	1.241	1.293	1.464	1.699
BSI-18 score × number of ACEs			10.371				
CDHS score				1.745	1.801	1.876	2.013
Number of referrals					1.078	2.832	3.244
Female						3.846	4.074
Age (years)							1.411
Access to PCP							1.127
Education level (above a HS diploma)							1.269

Note. BARC-10 = Brief Assessment of Recovery Capital, BSI-18 = Brief Symptom Inventory 18, ACEs = adverse childhood experiences, CDHS = Chronic Disease Helplessness Survey, PCP = primary care provider, HS = high school.

CONCLUSIONS AND IMPLICATIONS

In our analysis, we found several encouraging results regarding the effect of the peer recovery support program on individuals' ability to accrue enough recovery capital to sustain successful remission after one year. Not only did the odds that an individual would be successful in staying in remission increase with time in the program between their intake interview and their 6-month follow-up, but the odds of success increased as an individual's learned helplessness decreased during their time in the program. These findings suggest both that the peer recovery support program aids in the building of sufficient recovery capital to reliably predict successful remission after one year and that decreasing an individual's sense of helplessness on their road to recovery can influence their success after leaving the program. Programming that considers the unique individual needs of clients is critical to success (DiClemente, et. al., 2016; Sowers, 2022). While much research has been conducted to better understand the relationship among factors such as learned helplessness, histories of trauma and adverse events, and co-occurring disorders in predicting success in programs such as treatment courts, little has been published exploring these factors within the context of peer recovery support in treatment courts and their contribution to gains in recovery capital with time in the program. Similarly, gender differences have been explored thoroughly in the addiction literature, but a robust exploration of gender differences with regard to how recovery capital is built among individuals of varying genders has been limited until recent years. In this study, the odds of successful remission after one year as measured by recovery capital (BARC-10 > 46) were higher for females in the program compared with males. A recent study (Abreu Minero et al., 2022) highlights differences in recovery pathways depending on gender and the need for gender-specific programming for recovery community organizations and peer support services.

Also of note, the effect of mental health symptomology on recovery capital gains becomes nonsignificant when learned helplessness is included in the model. This may provide insight for treatment court programs that use parallel peer recovery support. The *Adult Treatment Court Best Practice Standards* emphasize the importance of being trauma informed and provide clear recommendations for screening and treatment of co-occurring mental health disorders, as these practices are known to improve outcomes for those with co-occurring mental health disorders and histories of trauma (All Rise, 2024). The association between learned helplessness and gains in recovery capital when holding trauma (adverse childhood experiences) and mental health symptoms (BSI-18) constant, as illustrated in this study, provides an opportunity for programs using peer recovery support services.

Learned helplessness within the context of substance use and justice involvement may also be an important contributing factor to consider in intervention design, as it is a significant predictor of recovery capital at follow-up as well. As people "unlearn" learned helplessness or access "agency," they are better equipped to take steps to improve recovery capital. Through the resources in treatment courts and professional treatment programs, they can work through those issues that taught them helplessness, with peer specialists serving as role models while linking them to supports. For example, one part of remediating learned helplessness is goal setting and action planning, activities that peer specialists can both support and model in their own lives.

It is important to note that programs should not only incorporate practices that reduce learned helplessness but also avoid practices that reinforce learned helplessness, such as the high use of jail sanctions for minor infractions in drug court (Marlowe, 2022). Peers may also provide perspective on this matter and serve as advocates on behalf of participants to the rest of the treatment court team (Kunkel & van Wormer, 2023). Further research is needed to identify specific practices that are effective in reducing the negative relationship between learned helplessness and the building of recovery capital within treatment courts (both adult drug courts and other treatment court types) using peer recovery support services, and to learn for whom those practices are most effective.

In addition to examining the relationship between various factors related to recovery capital improvement, this paper has sought to detail components of a peer recovery support program provided simultaneously with adult drug court to provide clinicians and programs with a blueprint for replication. Because recovery capital is a measure of the likelihood of success in recovery outcomes beyond the treatment phase (Vilsaint et al., 2017), as illustrated in our findings, it has the potential to play a key role in improved recidivism rates and long-term quality of life for justice-involved individuals. In addition to the noted benefits of peer services, they can extend support beyond the drug

court program timeline, which allows continued connection and likely better long-term outcomes; staying connected has been shown to improve long-term recovery (Reif et al., 2014). Embedding peers into drug courts who are accessible from the start of the program gives an immediate connection as well as one that can persist after graduation.

The findings of this study suggest that combining adult drug court and peer recovery support services may lead to notable gains in recovery capital among justice-involved individuals with SUD. The results have implications for programs designed for individuals involved in the justice system and who have long histories of substance use leading to high levels of learned helplessness, trauma, and possible co-occurring mental health disorders. The results also highlight the multifaceted background of individuals often served by these interventions and how critical considering additional factors such as mental health diagnoses, adverse childhood experiences, and existing resources is when developing programs and analyzing program effectiveness. Additional research may provide additional knowledge contributing to the standardization of peer recovery support service interventions and best practices for participants within the justice system and specifically those in adult drug courts.

LIMITATIONS

This study was an evaluative analysis of a novel parallel program that combined adult drug court with simultaneous peer recovery support services. A key limitation of this study is the lack of comparison groups and the likelihood of sampling bias. Future experimental studies that assign participants to specific conditions of peer recovery support only, drug court only, and combined parallel programming would reduce sampling bias and would allow for condition comparisons and potential interaction effects of the interventions.

Another limitation, specific to the logistic regression analyses, is the size of the analysis sample. While the power analysis conducted for the final model indicated that we had enough power to confidently detect an effect, our small sample size can still lead to less precise estimates, risk of overfitting, and generalizability issues. Future studies with larger samples sizes would further reduce the concern of not having enough power to confidently detect an effect.

Additionally, the data were collected by self-report interviews rather than observational or diagnostic data. Adding a diagnostic assessment to the analysis would inform researchers as to whether specific mental health diagnoses have an impact on improved symptoms (and recovery capital) and if there is an interaction effect of specific diagnoses versus symptom severity only. Data other than self-report measures would also account for a potential social desirability bias, where subjects "learn" or anticipate over multiple test administrations what the researchers' desirable measures are and report what they believe to be the "best" answer.

Another consideration is that participants in the drug court used in this study remain in the program for a minimum of 15 months. A study of the stability of recovery capital gains found in the first 6 months of the program (as identified in this study) should be undertaken to determine long-term trends. For example, future research that uses a repeated measures design, such as intake and 6-, 12-, and 18-month follow-up time points, would be a more robust model, and extending the time beyond the 15-month period would help in determining the impact after drug court completion. Additional time points would also reduce the likelihood of type I errors. Pre to post improvements in recovery capital could simply be a statistical phenomenon known as regression to the mean, where differences occur by chance; adding additional time points would help avoid this limitation. It should also be noted that the peer specialists were not necessarily matched to participants based on the absence or presence of a co-occurring disorder and accompanying mental health diagnosis. Future studies where peers are matched on co-occurring diagnoses should be conducted.

Additional measures, both process and individual participant characteristics, would allow for a better understanding of recovery capital gains and the factors that contribute to those gains. Future studies should include a more accurate "dose" measure. In this study, we attempted to model the number of referrals received as a "dose" of services provided, but the data are difficult to interpret. Studies that focus on the process outcomes, such as what types of services were used by whom and in what environments, would add to generalizable knowledge.

The last limitation of note for this study is that there is no measure of participants' family structure. An individual's relationship and cohabitation status with significant others and children has been shown to be a strong predictor of recovery capital gains, especially for women in recovery in

the United Kingdom (Anderson et al., 2021). Adding relationship status, family-living environment, and caregiver status of children to the existing model would indicate whether the same is true for our population of focus in a drug court setting.

Despite these limitations, researchers, practitioners, peers, and treatment court staff alike can be encouraged to learn and apply the tools using a recovery capital framework such as the one described in this article to support individuals in their journey toward long-term recovery from substance use and the negative impacts of justice involvement.

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Eleanor Hughes, MS, works in grants management and evaluation at the University of Arkansas for Medical Sciences in the Department of Family and Preventive Medicine's Research and Evaluation Division in the fields of substance use, mental health, and the criminal justice system. She has experience with data collection and tracking, report development, and data-driven quality improvement for diversion and treatment court programs. Ms. Hughes has been supported by six Substance Abuse and Mental Health Services Administration grants to track, evaluate, and report the successes and challenges of programming and services within treatment courts. Her areas of interest include trauma-informed and evidence-based treatment interventions for vulnerable populations in the criminal justice system, with a focus on the longitudinal effects of social determinants of health, mental health indicators, health literacy, and childhood trauma.

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ATTESTATION OF ORIGINAL WORK AND IRB APPROVAL

Original Work

We certify that the above-titled manuscript represents original work and that we have reviewed the final version and approve it for dissemination and/or publication. Neither this manuscript nor a manuscript with substantially similar content under our authorship has been published or is currently being considered for publication by any other journal. All co-authors have participated in the preparation of this manuscript and are in agreement with its contents.

Institutional Review Board Approval

The study was conducted in accordance with the ethical standards of the American Psychological Association (APA) and was approved by the APA Institutional Review Board.

The data used in this study (Building Communities of Recovery evaluation project for PEARL's Peer Impact Project) was reviewed by the University of Arkansas for Medical Sciences Institutional Review Board, which determined that this project is not human subjects research as defined in 45 CFR 46.102. The project was determined to not meet the criteria for human subjects research because the project is intended for local internal use to improve local practices.

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PRACTICE COMMENTARY

Recommendations for a Mission of Healing: Incorporating Trauma-Informed Principles, Military Values, and Gender-Responsive Strategies With Justice-Involved Female Veterans

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ABSTRACT

Military veterans' transition back to civilian life can be difficult due to various problems, including trauma and adjustment from military cultural norms to civilian expectations. Justice-involved female veterans experience high rates of trauma both before and during military service. Female veterans who come into contact with the justice system have unique needs that often are not adequately addressed. This article explores the characteristics of female veterans in the justice system, the role of trauma, and the programming currently available for these women. Additionally, it proposes recommendations for a mission of healing by reframing military culture and values in a trauma-informed and gender-responsive manner to help veterans prioritize their healing. The recommendations offer strategies for providers with the Department of Veterans Affairs and in the communities that work with this population.

Keywords: Female veterans, trauma-informed, justice-involved, trauma theory, military culture, gender-responsive

INTRODUCTION

Military veterans' transition back to civilian life can be difficult due to various problems, including trauma and adjustment from military cultural norms to civilian expectations. Trauma can profoundly affect functioning and may be a pathway into the justice system (Evans-Chase, 2014); this is especially true for women with early experiences of trauma (Jones et al., 2021) and subsequent involvement with the justice system (Zinzow et al., 2007). Trauma among justice-involved female veterans (JIFVs) is ubiquitous, with rates as high as 99% (Stainbrook et al., 2016). Female veterans experience high rates of trauma both before (Gaska & Kimerling, 2018) and during military service (Goldzweig et al., 2006).

Women veterans who come into contact with the justice system have unique needs that often are not being adequately addressed. JIFVs face issues similar to those experienced by nonveteran women, but these issues are exacerbated by military-related trauma. Research scholarship focusing on JIFVs is essential due to high levels of behavioral health problems, increased exposure to trauma (McCall & Tsai, 2018; Schaffer, 2014; Stainbrook et al., 2016), military deployments (Stainbrook et al., 2016), and the unique culture in the military that has historically discouraged help-seeking behaviors (Hall, 2013; McCormick et al., 2019). This article explores the characteristics of female veterans in the justice system, the adverse role that trauma plays, and the therapeutic interventions and programming currently available to them. Additionally, the recommendations presented offer strategies for providers who work with this population to reframe military culture and values in a trauma-informed and gender-responsive way to help JIFVs prioritize their healing as a part of the greater objective of becoming productive members of society.

LITERATURE REVIEW: JUSTICE-INVOLVED FEMALE VETERANS

Veterans make up about 8% of the prison and jail population, and women veterans are a small fraction of that, roughly 2% of the incarcerated population (Maruschak et al., 2021). Incarcerated female veterans are generally younger and less likely to be married than incarcerated male veterans (McCall & Tsai, 2018). They are also less likely to have been convicted of a violent offense: 17% of incarcerated female veterans were convicted of a violent offense versus 33% of incarcerated male veterans (McCall & Tsai, 2018). Further, Black women veterans are disproportionately represented in the prison population, with a rate of incarceration that is twice that of White women veterans (McCall & Tsai, 2018). This finding is not surprising, as it is consistent with the racial inequalities that exist in the broader justice system. While the incarceration rate of Black women decreased significantly between 2000 and 2019, Black women's rates of imprisonment continue to be 70% higher than those of White women (Heimer et al., 2023). Additionally, JIFVs face high levels of homelessness, with rates varying from 33% to 60% (McCall & Tsai, 2018; Schaffer, 2014).

Although the population of JIFVs seems small compared to the overall population of incarcerated individuals (Maruschak et al., 2021), the needs of JIFVs are significant and deserve attention. Most of the available literature compares JIFVs with male veterans but highlights significant differences. Justice-involved veterans who are women had a higher likelihood than male justice-involved veterans of reporting severe medical conditions, including hypertension, seizure disorders, and mood disorders (McCall & Tsai, 2018). JIFVs have higher rates of mental health and substance use problems, higher rates of posttraumatic stress disorder (PTSD), and more severe symptoms of PTSD than justice-involved male veterans (Schaffer, 2014; Stainbrook et al., 2016). Compared to their male counterparts, JIFVs had a higher rate of mental health diagnoses (88%) than justice-involved male veterans (76%) (Finlay et al., 2015). Female veterans' involvement in the justice system is also associated with increased suicide attempts when compared with female veterans who are not justice involved (Holliday et al., 2021). In its recent report that highlights veteran suicide, the Department of Veterans Affairs (VA) found that women veterans and veterans involved in the justice system were highly impacted by suicide: in 2021, the rate of suicide increased for veterans who received services from justice programs, and veteran women's rate of suicide far exceeded that of nonveteran women (Office of Mental Health and Suicide Prevention, 2023). In a systematic review of the health of women veterans, Goldzweig et al. (2006) found that they have high rates of sexual trauma, including military sexual trauma (MST) as well as premilitary and postmilitary trauma. Many JIFVs have endured multiple experiences of trauma that have a lasting impact on health and behavior.

Trauma Theory

Trauma theory explains the loss of control that individuals with complex trauma experience, leading to difficulties with affect regulation, consciousness (including dissociation and rumination), alteration of self-perception, relationship with others, and systems of meaning (Bloom et al., 2003; Herman, 1992). This loss of control may contribute to JIFVs' involvement with the justice system. When the body is threatened, it secretes cortisol hormones to help activate survival trauma responses, such as fight/flight/freeze (Gerdes et al., 2014). Over time, the regions of the brain that help with memory, emotion processing, and inhibition are affected (Fawley-King & Merz, 2014) and can lead to maladaptive behaviors, such as impulsivity and poor decision making. Fox et al. (2015) suggested that increased adversities among youth increased the likelihood of future criminal behaviors. The human response to trauma can change one's perceptions, eliciting intense feelings of anger and fear and rendering an individual overwhelmed and disorganized. Over time, this altered state can affect one's physiological responses and may lead to disconnection from oneself and others.

Trauma theory emphasizes empowering individuals to regain control and build positive relationships with self and the environment (Herman, 1998). Empowering JIFVs to collaborate with each other, providers, and other justice system personnel will ensure that their voices are heard in a safe environment and will help them develop vital relationships necessary for gaining control and mutual growth (Levenson & Willis, 2019).

Complex Trauma of JIFVs

Some women who enter military service have been exposed to numerous adversities before their service (Gaska & Kimerling, 2018). The likely addition of combat exposure and possible MST adds additional layers of trauma, leading to a difficult transition back to civilian life (Zinzow et al., 2007). Complex trauma results from repeated trauma, sometimes from different sources and often over time, which may result in difficulties in functioning and can impact relationships (Herman, 1992). About 85% of female veterans experienced childhood adversities (Gaska & Kimerling, 2018), often compounded by experiencing trauma while in the military; this includes combat trauma. Women currently make up 17.5% of the Department of Defense (DOD) active-duty force (DOD, 2022), and with female service members' roles in combat increasing beginning with Operation Enduring Freedom and Operation Iraqi Freedom, women will continue to be exposed to traumatic situations (Street et al., 2009). Nearly all female veterans (99%) who participated in a jail diversion and trauma recovery program had experienced nonmilitary, lifetime trauma (Stainbrook et al., 2016). The authors measured lifetime trauma as any sexual assault during their lifetime, physical violence by someone the victim knew, sexual assault under the age of 18, and sexual assault in the past 12 months. Stainbrook et al. report that 57% of JIFVs had seen someone being seriously injured or killed, 47% had been attacked or ambushed, and 90% of those who were in a combat zone reported combat trauma. JIFVs reported a significantly higher rate (68%) of nonmilitary lifetime sexual assault than male veterans who are justice involved (18%), and 58% of JIFVs experienced MST versus 5% of justice-involved male veterans (Stainbrook et al., 2016).

High rates of trauma may lead to substance misuse and mental health problems. Female veterans exposed to combat trauma had an increased rate of incarceration for a drug offense (Brooke & Peck, 2019). Kwan et al. (2020) found a significant association between intimate partner violence, depression, victimization throughout a relationship, and high-risk drinking among female veterans. Substance use disorder (SUD) is prevalent in female veterans in the justice system. Although the rate of SUD among justice-involved male veterans tends to be higher (72%), more than half of JIFVs had an SUD (Finlay et al., 2015). Of JIFVs with alcohol use disorder (AUD), 42% were homeless, versus 17% of female veterans with AUD who were not justice involved.

Mental health is impacted by trauma, and the prevalence of mental health disorders in JIFVs is high. Finlay et al. (2015) found that 88% of JIFVs had a mental health disorder. Additionally, JIFVs were twice as likely as their male counterparts to have a mood disorder (McCall & Tsai, 2018). Within certain populations of JIFVs, 95% of those who had an AUD also had a co-occurring mental health diagnosis (Taylor et al., 2019). Black, Indigenous, and people of color (BIPOC) JIFVs were more likely to be diagnosed with a psychotic disorder and to use the VA's homeless services than their White counterparts (Desai et al., 2023). Both male and female justice-involved veterans were three times as likely to have a diagnosis of a personality disorder than non-justice-involved

veterans (Holliday et al., 2023). Between female and male veterans in the justice system, 75% of women versus 65% of men met the criteria for PTSD, and women had more severe symptoms than men (Stainbrook et al., 2016).

Female veterans can become involved in the justice system for different reasons, and research has documented the connection between trauma, early adversity, and later criminal behavior (Testa et al., 2022).

Veterans Treatment Courts

Veterans treatment courts (VTCs) are one of the avenues that JIFVs can use to resolve their legal situations. Jurisdictions that do not have full-fledged VTC programs may establish veteran-specific dockets that serve a similar purpose. The first VTC was established in 2008 in Buffalo, New York, by the Honorable Robert Russell to divert veterans from incarceration by partnering with the VA and other community organizations and service providers, on the premise that veterans who suffer from substance use and mental health disorders would benefit from treatment rather than incarceration (Russell, 2015). VTCs are problem-solving courts that have proven to be helpful to justice-involved veterans and society by ensuring treatment and diverting them from jails and prisons, with a recidivism rate of around 14% within a year, compared to 23% to 46% with other populations (Tsai et al., 2017). Compared to other treatment court participants, VTC participants are more likely to have housing and employment upon completion of the program (Tsai et al., 2017). In a study of VTC participants, Baldwin (2017) found that substance use and mental health disorders were the most prevalent problems that female veterans in VTCs faced. Female VTC participants had a higher unemployment rate than male participants despite having higher levels of education (Hartley & Baldwin, 2023). Of the women in VTCs, 92% reported having experienced physical or psychological injury, and their rates of sexual trauma and sexual harassment were higher than among the male participants.

VTCs require participants to undergo treatment for behavioral health problems, and participants are generally supervised in the community (Russell, 2015). The treatment is typically provided by the VA or a community-based provider based on the individual's need (Finlay et al., 2016), which may not always address the issues of trauma. Despite the numerous evidence-based treatment modalities the VA provides to address trauma and other behavioral health concerns, no studies were found that addressed or evaluated the treatment that veterans receive during their participation in VTCs. McCall et al. (2018) agree that little is known about the types of treatment VTC participants receive and that they need to be evaluated. Although VTCs are helpful in addressing the needs of justice-involved veterans, research on VTCs tends to focus on male veterans and does not examine the gender-specific needs of women (Brooke & Peck, 2019; Jalain & Grossi, 2023). Gender-specific programming and treatment that promotes cohesion and camaraderie to assist females in the justice system are necessary (Brooke & Peck, 2019; Hartley & Baldwin, 2023; Jalain & Grossi, 2023).

Department of Veterans Affairs

The VA has two justice-related programs that serve justice-involved veterans. The Veterans Justice Outreach (VJO) Program is under the umbrella of the VA's homeless programs, which provide outreach services to veterans and connect them to VA services (VA, 2024b). VJO specialists serve as liaisons between the VA and other justice partners. The Healthcare for Reentry Veterans (HCRV) program provides outreach to veterans in prisons by assessing their service needs and linking them to medical, mental health, and social services (VA, 2024a). Both programs connect justice-involved veterans to VA services to ensure that they receive treatment from the VA or other community partners. The VA offers numerous treatment options to veterans, including evidence-based trauma treatment.

Female veterans who connected to the VJO program had a higher rate of engaging in treatment in the VA than their male counterparts (Finlay et al., 2016) and reported greater interest in receiving VA services (McCall & Tsai, 2018). Hispanic females who connected to the HCRV program were less likely to connect to justice-related services than their male counterparts (Desai et al., 2023). BIPOC females involved in the justice system were less likely than male participants to have a service-connected disability. Despite having higher rates of psychotic disorders, BIPOC JIFVs were less likely to use mental health services than their White counterparts (Desai et al., 2023). Scholars highlight that the needs of JIFVs go beyond those of male veterans or the general population; therefore, services need to target their specific needs (Schaffer, 2014; Stacer & Solinas-Saunders, 2020). Offering services to female veterans who connect to the VA and other community partners using recommendations that are trauma informed,

culturally responsive, and gender sensitive can help reduce trauma, address behavioral health needs, and increase engagement in services.

Military Culture

Although there are many facets to a justice-involved individual's culture and values, understanding military culture is crucial to addressing the needs of JIFVs. Culture usually includes a language, a code of behavior, beliefs, rituals, and manners (Reger et al., 2008), evident in the various military branches. Military culture, like other cultures, has explicit and implicit value systems that guide members' actions within the military and should be explored and incorporated in the treatment of JIFVs.

The DOD oversees the six branches of the military: the Army, Marine Corps, Navy, Air Force, Space Force, and Coast Guard. Each of these branches has its own set of values. The DOD's core values that service members live by are duty, integrity, ethics, honor, courage, and loyalty (Military Leadership Diversity Commission, 2009). Although the culture of the military has helped to ingrain these values into veterans, each veteran adopts them in a different way. Qualitative research on veterans' perceptions of military culture and their values and beliefs shows that military culture has both positive and negative impacts. One of the positive aspects of military culture is the importance of the hierarchical command structure, which helps veterans set clear objectives (McCaslin et al., 2021). Additionally, veterans report that a collective purpose helps them feel a sense of commitment, selflessness, and social responsibility to others. Veterans also report identification with a personal belief system that correlates with values such as honor, duty, integrity, discipline, and relational characteristics that foster camaraderie and trust (McCormick et al., 2019). However, some aspects of military culture, such as self-reliance and stoicism, may prevent some service members and veterans from seeking help (Hall, 2013; Randles & Finnegan, 2022). Using the veterans' cultural values alongside trauma-informed principles may be instrumental in helping them regulate their emotions and manage impulsivity, thus deterring engagement with the justice system.

The intersectionality of the JIFVs must be considered in order to have a greater understanding of their needs. The concept of intersectionality originates from Kimberlé Crenshaw's work and has evolved into a framework that recognizes the various social identities, such as race, gender, and other identities, that impact societal responses (Crenshaw, 1991). Crenshaw acknowledges that multiple identities are often present in marginalized groups, compounding discrimination and oppression, and are not always considered in the broader social structure. Meade (2020) identifies military identity as one aspect of the female veteran that has been overlooked by society when considering their presentation and necessary services. The added complexity of gender in a hypermasculine military society may promote discrimination. In addition to navigating being female in a patriarchal society, women veterans have served in a hypermasculine military culture (Boros & Erolin, 2021). While in the military, some women can feel victimized, discriminated against, and oppressed because of their gender, and possibly their race, only to return to a civilian society that is unsure of how to view their service (Demers, 2013; Strong et al., 2018; Meade,2020).

Providers may sometimes feel that the negative aspects of military culture justify its exclusion when they treat veterans. However, like all cultures, military culture has both negative and positive components; both can be useful in understanding and helping the individual. The various identities and legal situations of JIFVs should be considered when contemplating the role of culture and values in the treatment they receive.

Gender Responsivity

One of the primary considerations for gender-responsive treatment should be to address the individual's comprehensive needs and not just offer programming for women only (Bloom et al., 2003; Covington & Bloom, 2007; Substance Abuse and Mental Health Services Administration [SAMHSA], 2016). Having a group made up solely of women is not necessarily gender responsive if it does not address their needs. As a necessary consideration, gender-responsive treatment should acknowledge that gender makes a difference in assessing and treating individuals. Providers must understand the problems that female veterans face—such as trauma and substance use and mental health disorders—which often led to their involvement in the justice system (Bloom et al., 2003; Covington & Bloom, 2007; Gower et al., 2024). Effective treatment for women must consider the different aspects of a woman's identity, including sexuality, race, culture, and biases that tend to favor men (SAMHSA, 2016). Gender-responsive

programming should address the comprehensive needs of the JIFV. Historically, military culture helped service members develop the warrior ethos; the development of strength and resilience to overcome odds under challenging situations (Brim, 2013) should be an additional factor that will strengthen veterans' resolve in treatment.

Trauma-Informed Practices

Trauma-informed services should address the specific needs of individuals in a manner that considers their traumagenic needs (Harris & Fallot, 2001). SAMHSA's trauma-informed principles of safety, trustworthiness and transparency, peer support, collaboration and mutuality, empowerment, voice and choice, and cultural, historical, and gender issues can be feasibly addressed via trauma theory (SAMHSA, 2014). Safety is a basic need that impacts an individual's well-being in all areas of life. Ensuring that the JIFV feels safe psychologically and physically is crucial (Bloom, 2013; Levenson, 2020; Levenson & Willis, 2019; SAMHSA, 2014, 2023). Principles of trust and transparency are essential to the healing process of each JIFV. Making decisions in a transparent manner helps build trust (SAMHSA, 2014).

A central concept related to programming for JIFVs is peer support from other veterans. Providers should encourage opportunities for mutual self-help and interactions with other female veterans in the justice system (SAMHSA, 2014). A collaborative and mutual relationship will prioritize relationships while acknowledging and addressing power differentials between the veteran and the provider (SAMHSA, 2014). Providers and agencies must acknowledge individual experiences and strengths, prioritize the needs of the individual, seek and include input from the veteran in aspects of the treatment and the agency, encourage veterans to speak up, and empower them to make decisions (SAMHSA, 2014, 2023). Ensuring that services to veterans are trauma informed by acknowledging cultural, historical, and gender issues in a safe and transparent environment is also of great importance (Levenson & Willis, 2019).

Gap in Literature

There is little literature devoted solely to the needs of JIFVs (Schaffer, 2014). Some studies that compare justice-involved female veterans with justice-involved male veterans highlight the trauma and behavioral health needs of JIFVs (Brooke & Peck, 2019; Finlay et al., 2015; McCall & Tsai, 2018; Stainbrook et al., 2016) but give little guidance on how to address them. Several authors address identity conflicts in female veterans (Demers, 2013; Meade, 2020; Strong et al., 2018) and bring attention to considering gender and culture as components in treating female veterans.

To date, no frameworks in the literature address the specific needs of the JIFV population. Although there are gender-specific guidelines for addressing the needs of incarcerated women (Covington & Bloom, 2007), none guide the adaptation of these treatments to meet the unique cultural, interpersonal, and trauma-specific needs of JIFVs in the community. The available literature on JIFVs calls for gender-specific treatment (Brooke & Peck, 2019; Hartley & Baldwin, 2023; Jalain & Grossi, 2023; McCall & Tsai, 2018; Schaffer, 2014) and for programming provided for female veterans to consider aspects of military culture, such as camaraderie and cohesion (Hartley & Baldwin, 2023). Schaffer (2014) strongly advises addressing JIFVs' problems and risk factors to reduce recidivism and improve reintegration into the community; to date, no literature has been found that answered this call.

Military lifestyle and cultural factors, including deployment, exposure to trauma, and stoicism (Goldzweig et al., 2006; Hall, 2013; McCormick et al., 2019), often intersect with JIVFs' mental health and legal challenges. When the military culture is added to the complex issues faced by the female veteran who enters the justice system, considerations for cultural values and gender-specific needs should be prioritized. Van Voorhis et al. (2010) found that the paths that lead to criminal behavior among women differ from those for men; therefore, gender-responsive programs and treatments are needed. Men's pathways to crime tend to be related to societal position, class, and race and often aim to express masculinity through the use of aggression to solve problems of control, autonomy, and economic situations (Anderson et al., 2020; Byrne & Trew, 2008). On the other hand, women's involvement in the justice system is often motivated by finances, negative emotions, and substance use and mental health disorders (Anderson et al., 2020; Byrne & Trew, 2008). The military culture helps guide service members' values, encourages the members' collective identity, and significantly impacts the transition to civilian life (Brim, 2013; Hall, 2013). The loss of that collective identity and related camaraderie may have a negative impact, which may contribute to justice involvement. Therefore, the services provided to JIFVs should

adopt recommendations that are trauma informed, incorporate military cultural values, and are gender responsive.

RATIONALE FOR PRACTICE ADVANCE

Although JIFVs represent a small portion of the justice-involved population (Finlay et al., 2016; Maruschak et al., 2021), attending to their rehabilitative needs addresses the social work challenge of smart decarceration and aligns with the mission of the VA to care for those who have served the nation (VA, 2023). The strategy known as smart decarceration proposes three ways to effectively decrease the problem of mass incarceration (Pettus-Davis & Epperson, 2015): reducing the jail and prison population, addressing disparities in the justice system, and maximizing public safety and health. Addressing the needs of JIFVs will meet these challenges by reducing recidivism, addressing disparities in the treatment that women receive, and ensuring public safety by providing the tools to support their recovery.

To address the gap in the literature associated with JIFVs' cultural, interpersonal, and trauma-specific needs, trauma theory will be used here to guide the application of trauma-informed principles to practice with JIFVs. Trauma theory encourages recovery by establishing safety, identifying and exploring the traumatic events, and reconnecting to life and others (Bloom et al., 2003; Herman, 1992, 1998). Herman (1992) contends that relationships are the primary mode of healing and recovery for an individual who has been disempowered and disconnected from others. The new connections begin when the individual feels safe, is given opportunities to remember and mourn, and eventually can reconnect with others.

This practice advance offers recommendations for integrating the core values of the military with trauma-informed principles to help JIFVs address trauma and begin to resolve legal situations. Gender-specific treatment is essential because of the difference in JIFVs' use of substances and exposure to trauma, compared to justice-involved male veterans (Stainbrook et al., 2016). There is a need for supportive programs that include evidence-based mental health treatment modalities to address the needs of female veterans and to support successful integration (Strong et al., 2018). Hartley and Baldwin (2023) refer to the cohesion and camaraderie of female veterans as considerations when working with them. Ensuring that military cultural values and gender-specific strategies are incorporated into treatment for JIFVs offers an avenue to address the gender and culturally responsive programming that will help them readjust to society and build healing relationships.

PRACTICE ADVANCE: RECOMMENDATIONS FOR A MISSION OF HEALING

Research on JIFVs identifies trauma as a significant concern, meaning that trauma-informed and gender-responsive treatment is essential. Elements of gender-responsive and military cultural values can be incorporated into the trauma-informed principles to address the high rates of trauma and related needs of this population. Trauma-informed practices can help clients engage in a more curative relationship (Levenson, 2020). The following recommendations are based on a review of the literature and this author's experience working with individuals in the justice system; additionally, they were reviewed by three female veterans who are licensed social workers for their perspectives on the language used and its reflection of military cultural values.

Military personnel are familiar with the concept of missions and have learned to prioritize accomplishing an assignment as a part of the greater objective of ensuring the nation's safety (McCaslin et al., 2021). A mission of healing thus reframes the veteran's individual health as the assigned priority, making it clear that it is a necessary component of achieving the higher objective of being a healthy, functioning member of society. These recommendations provide a framework for using gender and military culturally responsive treatment with JIFVs by leveraging their existing values gained through their adoption of military culture. These values can be used to encourage and strengthen treatment in terms that are familiar to the veteran, hence using a strengths-based approach to frame their mission of healing.

The following recommendations should be adapted to the individual, setting, and circumstances. The primary consideration in using any set of recommendations is that the recommendations will not fit every individual in every situation. Clearly understanding the veteran and their preferences is of utmost importance. How military culture is incorporated should also be discussed with the

veteran. While most former military personnel identify with military values and culture, some individuals may opt out for various reasons, including having experienced trauma while serving in the military. Incorporating the knowledge of trauma into the delivery of services to individuals requires understanding the individual and responding in a manner that is trauma informed (Levenson, 2020). Table 1 provides recommendations for incorporating each trauma-informed principle with corresponding military values and recommendations for a mission of healing. Each recommendation discusses implementation strategies for incorporating gender-responsive and trauma-informed principles.

TABLE 1. Implementation Strategies Using Trauma-Informed Principles and Military Culture

Recommendations for a Mission of Healing	Trauma-Informed Principle	Related Military Culture and Value	Implementation Strategies
Understand that duty to self is a necessary component of commitment to the well-being of others.	Safety	• Cohesion • Collective responsibility • Loyalty	• Help the veteran see the value of their health as an essential aspect of the health of the collective. • Seek input from the veteran about what it means to feel safe. • Help the veteran feel a sense of control over their surroundings.
Acknowledge and support that it takes courage to trust others.	Trust and transparency	• Hierarchical command • Integrity, trust, reciprocity, dependability	• Be familiar with military culture and language. • Confer about treatment processes and options. • Discuss limitations, especially related to court-mandated programming. • Clarify limitations of confidentiality.
Facilitate an environment that encourages loyalty and reciprocity to the team.	Peer support	• Devotion to the mission • Loyalty, camaraderie	• Encourage the veteran to create and adhere to the rules of engagement, and teach honest communication, power sharing, and reciprocity. • Refer and support referrals to VTCs.
Support and demonstrate that collective responsibility results in a successful mission.	Collaboration and mutuality	• Cohesion/duty and mission • Collective responsibility, discipline, reciprocity	• Ask the veteran specific questions about their adjustments to civilian life and their specific needs to help with their transitions. • Provide support to decrease fragmented services. • Ask about specific challenges and opportunities for growth to meet financial and familial needs.
Infuse a sense of duty to use their voice to advocate for their mission.	Empowerment, voice, choice	• Duty, honor, integrity	• Use questions that will foster growth. • Support the veteran's choice in treatment options.
Encourage honor and pride regarding all aspects of the individual.	Cultural, historical, and gender issues	• Collective purpose, courage, selflessness	• Dissect the impact of the veteran's various identities. • Encourage service to others and connection to cultural activities. • Support and encourage participation in groups and in religious and/or spiritual activities.

Recommendation 1: Understand That Duty to Self Is a Necessary Component of Commitment to the Well-Being of Others (Trauma-Informed Principle: Safety)

Duty and commitment are core military values across the services (Brim, 2013). Service members often feel a sense of commitment to the safety of others as their duty (Brim, 2013; McCaslin et al., 2021). Thus, safety can correlate with the military concept of collective responsibility, which connects to the values of duty and commitment. However, the military culture of prioritizing the mission can also be at odds with the concept of safety, causing military personnel to feel like seeking help may interfere with the primary mission (Brim, 2013). In treatment, the choice to seek help can be reframed as being a means to ensure the mission's success. While self-sacrifice may be a component of the warrior ethos, helping the veteran see that every part of the team is essential supports the idea that one's needs are an important component of the whole. In this context, the veteran's team consists of individuals to whom they feel responsible, including family, friends, and the greater society. Understanding that the individual and the environment are safe is a prerequisite to completing the mission of healing and the commitment to others. Framing this recommendation to ensure that JIFVs can maintain their commitment to the mission and the team by first addressing their own needs as a duty is a component of the larger mission.

Assisting the veteran in embracing the idea that a duty to self is a priority requires respecting and treating the individual with dignity. Providers can facilitate safety through relationships. Levenson (2020) suggests fostering the need for reliable and predictable relationships by ensuring genuine interest and nonjudgmental attitudes. Individuals in the justice system are often stigmatized in society (Moore et al., 2024), and helping to rebuild an environment of safety requires accepting the individual. Providers can seek out JIFVs' input on what it means to feel safe and what healing looks like for them—for example, asking what role military values and culture currently play in their lives and how they affect their day-to-day activities. Providers need to assure veterans that they are part of their team and will support them throughout the mission of healing.

Gender-responsive and trauma-informed clinicians can foster safety by ensuring that requests for providers whose gender identity, race, and culture are similar to the veteran's are granted whenever possible. The physical environment should feel safe and offer a sense of control. Due to their heightened senses and past traumatic experiences, veterans are often more triggered by perceived threats in the environment, whether real or not (Koenig et al., 2014; McCaslin et al., 2021). Seeking a client's permission helps them feel at ease and decreases the sense of insecurity they may experience; for example, let the client know when the door will be closed or offer options instead of directives (Currier et al., 2017).

Recommendation 2: Acknowledge and Support That It Takes Courage to Trust Others (Trauma-Informed Principle: Trust and Transparency)

Courage, or the willingness to enter into dangerous situations, is another core military value and characteristic of the warrior ethos (Brim, 2013). As discussed earlier, in addition to being female in a patriarchal society, women in the military experience a hypermasculine culture where they feel victimized, discriminated against, and oppressed based on their gender and sometimes racial identities (Demers, 2013; Meade, 2020; Strong et al., 2018). Because female veterans may have had traumatic experiences and been discriminated against throughout their lifetime, establishing trust may be difficult. Providers can acknowledge the courage to initiate treatment and allow time to develop trust.

Military values of integrity, trust, reciprocity, and dependability are essential concepts to model, build, and expect of JIFVs. Providers should be familiar with military culture and language. Because service members have reported both positive and negative aspects of military culture (McCaslin et al., 2021), providers can ask veterans why they joined a specific branch and how connected they feel to the military or its values. Integrity and dependability are expected of the provider as much as the veteran.

An essential part of transparency is explaining the treatment process, informing the veteran of possible discomforts, and conveying what others have reported as a result of the treatment. Ensuring that female veterans are treated respectfully will help build trust and enhance safety (Levenson & Willis, 2019). It is also important to reassure veterans that the provider knows it will take time to earn their trust and is willing to be patient. Offer encouragement for seeking help, even if court mandated,

especially for clients who traditionally do not trust providers (Bloom, 2013). The stigma placed on seeking help that is common to the culture of stoicism may prevent the veteran from seeking help or from following through. Clarify the confidentiality practices and reframe the steps taken to receive treatment and begin to trust others as an act of courage. A JIFV may seek treatment due to a court order or other legal obligation; clarifying early on what information has to be disclosed and what will not be disclosed may help decrease associated fears and worries while building trust.

Recommendation 3: Facilitate an Environment That Encourages Loyalty and Reciprocity to the Team (Trauma-Informed Principle: Peer Support)

Military values of camaraderie, cohesion, and responsibility are essential qualities to build upon through peer support. Service members' group cohesion and collective purpose ensured that they learned to rely on each other in war zones, an important factor contributing to resilience. Many veterans report feeling isolated and not fitting in when they return to civilian life (Demers, 2013; Koenig et al., 2014; McCormick et al., 2019). Loyalty to the mission and the team was essential to survival and can be helpful again in recovery. Reciprocity is taught and expected to further the mission. Ensuring that veterans have access to groups with other JIFVs can facilitate the healing process by helping them connect to others.

Providers can assist veterans in their mission of healing by offering the support necessary to meet their needs and by invoking the values of loyalty and reciprocity by connecting them with other JIFVs. Many female veterans have the added burden of having adjusted to fit into the military, a masculine institution, and then needing to relearn how to live in a civilian society that now views them differently (Meade, 2020). Justice involvement then adds layers of shame, stigma, and trauma that often go unaddressed (Moore et al., 2024). Trauma-informed groups can enhance mutual aid between JIFVs by ensuring support through trauma-informed principles to promote the healing and well-being of group members (Rosenwald & Baird, 2020). Group themes can be offered in response to members' needs or based on trauma in general. Effective groups should teach the rules of engagement, honest communication, and power sharing. Referring veterans to VTCs or veterans dockets, and supporting those involved in VTCs to resolve their legal challenges, can address some of the camaraderie and relationship needs of JIFVs.

Recommendation 4: Support and Demonstrate That Collective Responsibility Results in a Successful Mission (Trauma-Informed Principle: Collaboration and Mutuality)

The military culture of group cohesion and collective responsibility can help build collaboration and clarify the mutual goals of the mission. Providers working with JIFVs can support their needs by sharing the responsibility of their treatment and helping them use the discipline they have developed in the military to reach their treatment goals. When veterans serve in war zones or theaters, women often feel the conflicts that arise between becoming a soldier and being discriminated against by male soldiers. In these situations, female veterans often feel as though they are fighting two wars: the battle to stay alive and the psychological war they experience from harassment by some of their male comrades (Demers, 2013). Ensuring that the JIFV sees their treatment as a shared responsibility between them and the provider helps them take responsibility for their healing and ensures that they feel valued. Providers can help JIFVs focus on values of reciprocity and discipline to share concerns and prioritize treatment and goals. They can also address the discrepancies between female veterans' experience of discrimination while in the military, conflicts that may arise due to their various intersectionalities such as race, gender, and sexual orientation, and the process of identifying which aspects of military culture they have retained and wish to incorporate. Providers may assess veterans' challenges and opportunities for growth by asking specific questions about adjustments to civilian life, the feelings they experience, and their specific needs for help with transitions (Koenig et al., 2014).

Individuals in the justice system often have obligations such as undergoing random urine screens, reporting to probation officers, attending court dates, and working while trying to complete treatment obligations. Providers can ensure that services are collaborative with the veteran and the community, when possible, to decrease the burden that fragmented programs may impose (Covington & Bloom, 2007; SAMHSA, 2016). Women in the justice system generally have fewer resources than men; a gender-responsive approach

helps to manage the various demands on the JIFV. Providers can work closely with court personnel to minimize the stress that accompanies these obligations. They can offer options to the JIFV regarding treatments and collaborate on a workable treatment plan. For example, JIFVs in mandated SUD treatment can participate in treatment goal planning and contribute ideas on what will work best for them.

Recommendation 5: Infuse a Sense of Duty to Use Their Voice to Advocate for Their Mission (Trauma-Informed Principle: Empowerment, Voice, and Choice)

As JIFVs continue on their journey and accomplish their mission to heal, providers must help infuse a sense of duty for JIFVs to use their voices to advocate for their own mission of healing. Empowering JIFVs to advocate for themselves is essential to the healing process. Female veterans often feel that they are not taken seriously and cite the need to uphold their reputation under high pressure (Randles & Finnegan, 2022). Empowering them to use their voices for self-advocacy will use the skills they have already acquired to accomplish their mission. Currier et al. (2017) suggest that supporting the veteran's self-advocacy is important but also requires the provider to use their resources to support them. Helping the JIFV clarify their needs and supporting them in articulating those needs to family members, providers, and the legal system are essential steps toward empowerment. Although this process may take time, it begins with understanding the goals of the JIFV, clarifying aspects of their mission, and helping them identify what they need to complete their mission.

Military values of duty, honor, and integrity can empower JIFVs to use their skills, talents, and voice to heal from the lack of power that has plagued them. Female veterans report that their experience in the military enhanced feelings of independence and determination and that they enjoyed being a part of something greater than themselves (Boros & Erolin, 2021; Meade, 2020). Reminders of the feeling of independence and determination may empower them to voice their needs and preferences while working toward healing. In clinical practice, providers use person-first language (Levenson, 2020) as a way to show respect and value to each veteran (National Association of Social Workers [NASW], 2015); these values can also be modeled and taught to JIFVs as they begin to see self-advocacy as a duty to themselves and an essential aspect of their healing. Providing a supportive, nonconfrontational approach includes discussing the best ways for the client to tackle a specific problem and helping them see each choice's positive and negative aspects (Levenson, 2020), including negotiating ideal treatment modalities to address trauma and behavioral health concerns.

Recommendation 6: Encourage Honor and Pride Regarding All Aspects of the Individual (Trauma-Informed Principle: Cultural, Historical, and Gender Issues)

Military culture and values of collective purpose, courage, and selflessness help JIFVs complete their mission despite challenges. Although JIFVs may face difficulties with oppression and discrimination while serving, they are proud of their service and accomplishments (Boros & Erolin, 2021; Meade, 2020). Providers can encourage honor and pride in all aspects that make up the individual veteran despite the challenges. Essential considerations are the effect that race, historical trauma, gender, sexuality, finances, and familial expectations may have on the veteran's values and treatment. Helping the JIFV understand these aspects of their identity can help address internal conflicts they may experience. Gender and cultural considerations include encouraging relationships relevant to women's well-being and using the resources and strengths of the group to promote cultural awareness (Bloom et al., 2003).

The stereotypes associated with being a female veteran and justice involved may prevent a provider from genuinely seeing the individual JIFV they are attempting to treat. Seeking to know each veteran beyond stereotypical norms, learning about the various intersectionalities of each veteran, and offering access to services that align with their values and encourage healing (SAMHSA, 2014, 2023) are crucial aspects of delivering trauma-informed services. An essential aspect to consider in encouraging honor and pride is to foster service and connection to the community. Female veterans value serving others even after they leave the military (Boros & Erolin, 2021; Meade, 2020). JIFVs can continue to connect to their mission to heal by serving others in the community and participating in activities that connect them to their cultural identities. Consider options to help veterans navigate these issues, including religious or faith-based activities and affiliations, as one study showed that veterans transitioning from active duty who participated in religious or spiritual activities had better

transitions to civilian life (Morin, 2011). Providers can support and encourage participation in groups and religious and spiritual activities by discussing them, incorporating their faith into treatment, and offering resources as necessary.

BARRIERS AND LIMITATIONS

Implementing the recommendations for a mission of healing has limitations. Staff education about military culture, gender responsivity, and trauma-informed principles requires time and financial investments. Potential setbacks, such as the need for buy-in from leadership and staff within the VA and other community settings, may interfere with the implementation and continuation of services. Education on trauma, gender-specific problems of female veterans, and the effect of military culture on veterans may prove to be an essential tool to change attitudes. Initial efforts to educate staff on military culture may be challenging; however, with the understanding that a trauma-informed perspective necessitates cultural competence, the VA and community agencies will find that the effort will pay off in treatment successes, satisfaction, and retention. Additionally, some veterans may not have a strong identification with military culture or the specific value that is addressed; seeking veterans' input on alternative values to motivate them can be an effective way to assist them.

CONCLUSION

A trauma-informed approach to delivering services should give the client a sense of control, offer genuine collaboration, focus on the whole person rather than only parts of them, and explore and consider the impact of trauma on the individual (Harris & Fallot, 2001). The recommendations to incorporate military cultural values, an essential aspect of the female veteran's identity, meet this challenge and reduce the deleterious effect of trauma. This practice advance seeks to address the gap in the literature on JIFVs by offering trauma-informed, gender-responsive recommendations to reframe military cultural values that veterans have adopted to help guide their treatment and their mission to heal. The recommendations for a mission of healing were derived from a review of the literature and the practical experience of this author. There is a need for research to evaluate their effectiveness with JIFVs and possible adoption as evidence-based practice for including concepts of gender and military culture in the treatment process.

Perhaps because of the low number of JIFVs, little literature is devoted to researching and addressing their needs. Future research on JIFVs is essential to support their continued growth and well-being. Research should reflect on the specific needs of JIFVs, their treatment, and the impact of military culture on their worldview. There continues to be a need to evaluate the outcome of the treatment that JIFVs receive, a sentiment that has been echoed by other scholars (Schaffer, 2014; Stainbrook et al., 2016). Because many female veterans are of child-bearing age, research should also consider the impact of treatment on the well-being of their children. Considerations for qualitative research on the impact that incorporating military culture and values may have on the treatment and trauma of JIFVs are necessary. Additional considerations for adapting these recommendations to meet the needs of other veterans should also be evaluated for effectiveness.

Although it should not be assumed that all JIFVs still wish to draw on the values they attained through military culture, all veterans should have access to culturally competent providers and the opportunity to use their adopted values to aid their treatment gains. Educating staff who provide services to JIFVs in military culture is critical; cultural competence is a core component of helping individuals, and military culture is no exception (American Psychological Association, 2016; NASW, 2015). Despite their difficulties in the military, female veterans largely embrace the identity of being a veteran and see their service as an honor and a source of pride (Boros & Erolin, 2021; Demers et al., 2013; Meade, 2020). Integrating military culture and gender-responsive principles may lead to better outcomes and help the female veterans who have served their nation heal from trauma, experience less recidivism, and continue to contribute to their families, communities, and society.

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This submission is the original work of Isabelle Valeus.

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PRACTICE COMMENTARY

Recovery-Oriented Cognitive Therapy: A Testable Framework to Promote Successful Long-Term Recovery From Substance Use Challenges for Justice-Involved Individuals

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ABSTRACT

For a substantial majority of justice-involved individuals in the United States, challenges related to substance use pose a barrier to sustaining a desired life in the community. Current treatment approaches are insufficient; more than 50% of individuals who use substances are rearrested within 3 years of release from incarceration (Belenko et al., 2013). Effective innovations in treatment are needed to better balance individual and community safety, mitigate risk, reduce recidivism, and promote sustainable recovery. Sitting at this intersection, Recovery-Oriented Cognitive Therapy (CT-R) uses whole-person, strengths-based interventions rooted in Aaron T. Beck's cognitive model to empower individuals with justice involvement, substance use, and mental health challenges. CT-R provides a roadmap for understanding how negative beliefs maintain substance use and criminal behavior and how positive beliefs can be strengthened through daily, meaningful action contributing to long-term goals. Through bolstering a sense of purpose, CT-R increases internal facets of recovery capital and engagement with external resources to sustain overall recovery in a desired community. This article details CT-R's theoretical model, demonstrates its application at the intersection of justice involvement and substance use, outlines future research and program evaluation steps, and provides actionable strategies that stakeholders can implement to support long-term recovery.

INTRODUCTION

Substance use plays a major role in the lives of many justice-involved individuals. More than 80% of adults in prison or jail report using substances during their lifetime, 40% say they were using at the time of their offense, and 20% indicate that they committed a crime to obtain drugs, all factors that contribute to the 60% prevalence of drug dependence among incarcerated individuals (Bronson et al., 2017). In the community, 24% of nonincarcerated adults with legal challenges meet the criteria for a substance use disorder, compared to only 4% of those without legal problems (Ford et al., 2022; Moore et al., 2020). Importantly, substance use is a significant predictor of recidivism for a variety of offenses: individuals who use substances are more likely to be rearrested following an initial arrest or release from incarceration and, on average, have more arrests in a 3-year period compared to those who are not involved in substance use (Katsiyannis et al., 2018; Magee et al., 2021; Zgoba et al., 2020).

The significant deleterious impact of substance use for justice-involved individuals places considerable importance on the variety of substance use treatments available within the justice system. Examples of treatment include alternatives to standard prosecution (e.g., diversion or drug treatment courts), treatment while incarcerated (e.g., therapy, manualized group treatments, medication for substance use disorders), and mandated substance use treatment as a condition of community supervision—with approaches running the gamut from individual or group therapy to residential or therapeutic communities. The empirical status of these treatment options is decidedly mixed. When these treatments are evaluated relative to a comparison group, some studies find a reduction in recidivism—although recidivism rates in both groups tend to be greater than 50%—while other studies find no difference in recidivism (Belenko et al., 2013; de Andrade et al., 2018; Jacobs et al., 2022; Kopak et al., 2016; Peters et al., 2017). Even where successful substance use programs are available, participation rates are paltry: in carceral settings, a quarter or less (19% to 26%) of those with substance use disorders participate in such programs. Similarly, one third (35%) of those on probation or parole and 1 in 5 (19%) of nonincarcerated adults with justice involvement report participating in substance use treatment (Bronson et al., 2017; Rowell-Cunsolo & Bellerose, 2021). Aside from access and resource-related barriers, one explanation for this limited engagement may be the perception that substance use treatment is not relevant. For example, one study found that many justice-involved adults report not needing or wanting treatment for substance use, as the therapeutic options offered do not address the most important aspects of their life (Rosenberg et al., 2019).

Given that substance use is prevalent among justice-involved persons, that it restricts the pursuit of a meaningful life, and that available treatments are limited in efficacy and perceived relevance, new innovative and impactful treatment options are needed. Recovery-oriented care (Davidson et al., 2009, 2010) has been identified as a way to improve treatment quality and appeal (Dixon et al., 2016; Kreyenbuhl et al., 2009). Indeed, this approach to care has been mandated since the release of the President's New Freedom Commission on Mental Health report in 2003. However, justice-related settings often encounter difficulty when trying to incorporate these principles due to factors inherent to the criminal legal system (e.g., length of stay, hierarchical decision making; DeMattteo et al., 2019), and because "success" is measured by legal constructs such as recidivism rather than whole-person definitions of recovery (e.g., living one's desired life; Dorkins & Adshead, 2011; Joudrey et al., 2021; Mann et al., 2014).

Below, we introduce Recovery-Oriented Cognitive Therapy (CT-R) as an innovative practice for justice-involved individuals with substance use challenges. CT-R encourages autonomy, fosters self-determination, balances individual and community safety, mitigates recidivism risk, and promotes sustainable recovery using principles that are person centered, strengths based, and flexible enough to have myriad applications in care. CT-R marries what we know "works" in rehabilitation for justice-involved individuals (i.e., cognitive behavioral therapy [CBT] approaches) with a recovery orientation, directly integrating substance use and any other mental health challenges or life stressors within treatment and thereby fortifying a sense of autonomy, connection, and hope for a personally meaningful future. In this article we provide an overview of the CT-R theory, the supporting evidence, and the general approach. We discuss the applications of CT-R at the intersection of substance use and the justice system, providing concrete examples of how key CT-R components can enhance care. We conclude by proposing hypotheses to be tested in future implementations of CT-R for justice-involved individuals who also experience substance use challenges.

CT-R THEORY, RESEARCH, AND APPROACH

CT-R Theory

CT-R has the potential to improve substance use treatment in the justice system by operationalizing recovery principles across any intercept of justice involvement. Guided by Aaron T. Beck's cognitive model (1963, 2019), CT-R is an evidence-based practice that provides concrete, actionable steps to promote recovery and resiliency (Beck, Grant, et al., 2021)—empowering individuals to experience their "best selves" and take action toward a meaningful and desired life. Importantly, CT-R also provides an efficient means to bolster protective factors linked to reduced recidivism (e.g., increased connection, meaningful ways to spend time), thereby achieving risk mitigation by diminishing evidence-based criminogenic risk factors (e.g., antisocial cognitions, lack of educational/vocational activities). CT-R focuses on lasting changes in individuals' beliefs, helping them view themselves as more capable, valued, and contributory while also viewing other people as worth connecting to and the future as more hopeful.

For the combination of justice- and substance-related challenges, CT-R's flexibility and broad applicability arise from its powerful, evidence-supported guiding theory (Grant & Beck, 2024), which comprises three interlocking elements: the cognitive model, the theory of modes, and attentional narrowing (Grant & Inverso, 2023).

The Cognitive Model

The foundational building block of CT-R theory is the cognitive model (Beck, 1963), which describes behavior and emotion in terms of underlying beliefs about how people view themselves, other people, the world more broadly, and their future. Over six decades of research support the cognitive model (Beck, 2019) for understanding the common challenges seen in forensic settings, including substance use and criminality, in terms of negative beliefs about the self, others, and the future (Beck, 1999; Beck et al., 1993). Common negative beliefs for both justice involvement and substance use include feeling demoralized, alone, isolated, mistrustful of providers or systems (e.g., mental health, judicial), judged or rejected, hopeless, broken, and incapable. CT-R extends the cognitive model to develop a similar understanding of people's beliefs when they are thriving, such as feeling capable, valued, and hopeful (see Table 1).

TABLE 1. Positive and Negative Beliefs

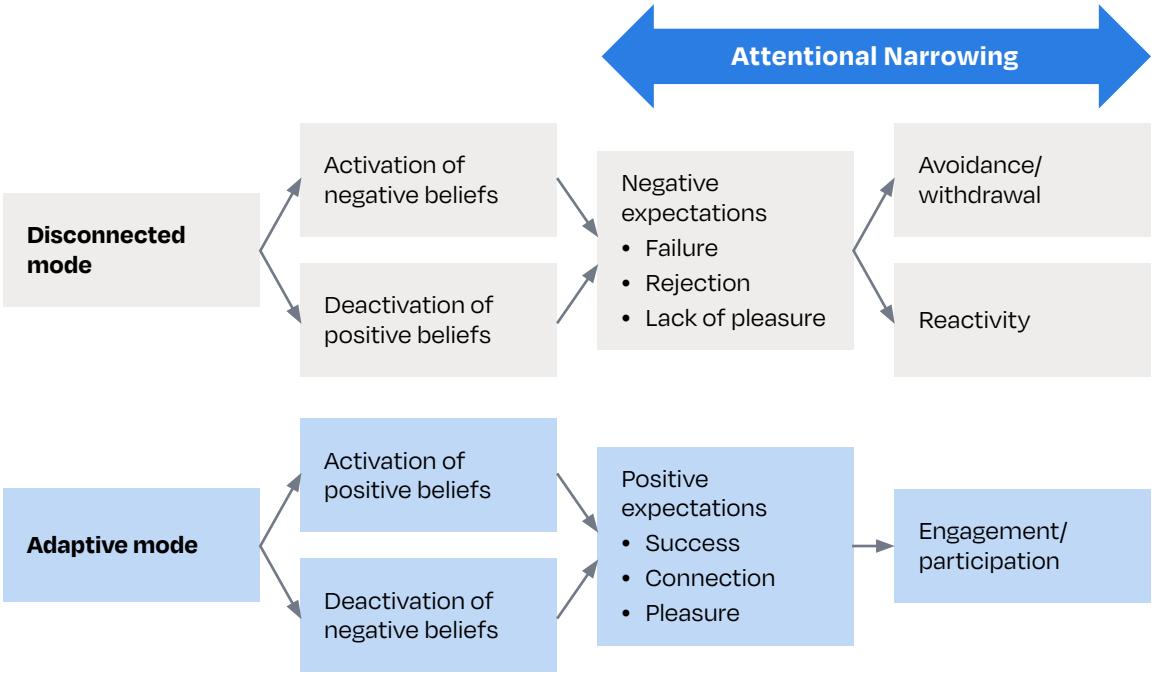
Beliefs to Deactivate *(Disconnected Mode)*	**Beliefs to Strengthen** *(Adaptive Mode)*
• "I am a bad person." • "I am a failure." • "Others judge me." • "This is as good as it gets." • "I cannot resist the urge to use." • "Nothing will feel as good as this." • "I can't have the life I envisioned."	• "I am a good person." • "I am more than my worst moments." • "I belong." • "I have something valuable to contribute to the world." • "I have overcome challenges before, so I can do it again." • "I can accomplish the things that are important to me."

Theory of Modes

The second core component of CT-R theory is Beck's theory of modes, which characterizes the interface between the person and the environment. Originally applied to personality disorders (Beck, 1996), the theory of modes is now transdiagnostic (Beck & Haigh, 2014; Beck, Finkel, & Beck, 2021), describing psychopathology as a mismatch between the internal mode and the environment. CT-R focuses on two specific modes: the adaptive mode and the disconnected mode (Beck, Grant, et al., 2021; Grant & Beck, 2024; see Figure 1). In the adaptive mode, a person feels "at their best" or more like themselves; their challenges or symptoms are less central, they have greater access to energy and motivation, they see themselves positively and expect positive outcomes, and as such they are more likely to engage with others and participate in meaningful life activities. In contrast, in the disconnected mode, a person has less access to energy, motivation, hope, or possibility, and challenges or symptoms dominate. They view themselves and other people negatively, expect the worst, and respond with reactive action (e.g., substance use, aggression) or isolation (e.g., depression, social withdrawal).

Both the adaptive mode and the disconnected mode are present within every person. For those with justice-related and substance use challenges (especially individuals who have experienced these challenges for a long time), the disconnected mode is more prevalent in a person's life, dominating their sense of self and resulting behavior. A primary focus of CT-R, then, is to bring about the adaptive mode more often and more predictably.

FIGURE 1. Theory of Modes



In CT-R, providers[1] aim to support the strengthening of positive beliefs, as this has been shown to correspond to increased community participation, reduced symptomatology, and neutralized negative beliefs (Grant & Best, 2019). See Figure 2 for a depiction of the mechanisms of change for traditional CBT and CT-R.

Attentional Narrowing

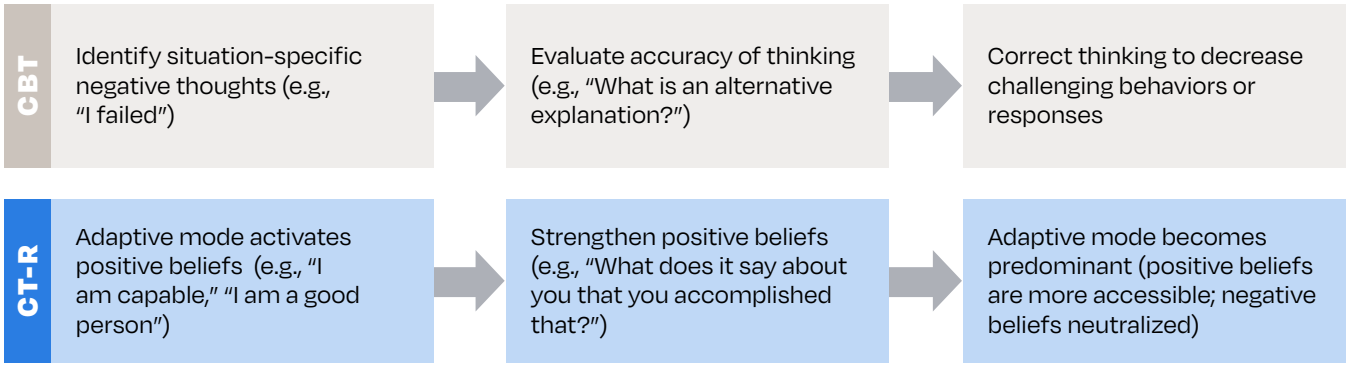
The third feature of CT-R theory involves attention, which can vary in scope from broad to narrow. Narrow attentional fixation—both conceptual and perceptual—can be useful for completing a task (e.g., writing an article), as it enables the individual to focus on the task at hand and screen out task-extraneous factors. CT-R theory (Grant & Beck, 2024) posits that challenges or symptoms can become entrenched through a similar mechanism. For example, a person prone to substance use can experience attentional narrowing such that they screen out alternatives to the active negative beliefs about a situation and possible action. This experience of "tunnel vision" is supported by research studies (Gable et al., 2015). For example, Hicks et al. (2015) have shown experimentally that perceptually cued alcohol cravings lead to consumptive behavior through an attentional narrowing mechanism that reduces access to alternative courses of action. Grant and Beck (2024) propose that CT-R strategies and interventions broaden attentional scope when the person is in the disconnected mode, thereby enabling transition to the adaptive mode and cognitive flexibility for resulting action, which empowers individuals when challenges arise.

CT-R Evidence Base

While CT-R is a relatively new approach in forensic settings, CBT—which shares the same theoretical model—has emerged in recent decades as the most prominent evidence-based practice in rehabilitation for justice-involved individuals (Barnes et al., 2017; Landenberger & Lipsey, 2005). Research in mental health and substance-related settings, where CT-R was first developed and evaluated, has empirically supported both the psychological (Beck et al., 2019; Campellone et al., 2016; Grant & Beck, 2009, 2010) and therapeutic models (Grant et al., 2012; Grant et al., 2017; Grant & Best, 2019) behind CT-R. These studies were conducted across multiple levels of care (e.g., restricted hospital units, forensic community teams, community

1 We employ the term *provider(s)* to capture both professional (psychiatrist, psychologist, social worker, nurse, lawyer, judge) and paraprofessional (case manager, peer specialist) providers that collaborate in care.

FIGURE 2. Comparison of Mechanisms of Change in CBT and CT-R



mental health programs) that correspond to intercepts of the Sequential Intercept Model[2] (SIM; Munetz & Griffin, 2006)—the primary outcomes being greater community participation, reduced mental health and substance use challenges, and strengthening of positive beliefs (Grant, 2019). A clinical trial evaluating the efficacy of outpatient CT-R compared to standard treatment in the community found that individuals receiving CT-R reported greater global functioning and reduced avolition, apathy, and positive symptoms (hallucinations, delusions) after 18 months (Grant et al., 2012). A follow-up study showed that these gains were maintained even 6 months after active CT-R treatment had ended (Grant et al., 2017). In forensic mental health settings, specifically, CT-R can advance an individual's pursuit of both forensic recovery (i.e., reduced risk and recidivism) and mental health conceptualizations of recovery (i.e., a meaningful and desired life).

From the beginning, CT-R has endeavored to be an approach appropriate across cultures by intentionally considering the needs of those not always included when designing treatment methods (racial, ethnic, and religious minorities and those from lower socioeconomic statuses). The development of CT-R was heavily informed by a series of interviews conducted with individuals with lived experience in Medicaid-funded mental health agencies in Philadelphia, most of whom were people of color. All of the research validating the CT-R model and theoretical approach has occurred in communities that have historically been excluded from research; in the clinical trial evaluating CT-R, two thirds of participants identified as African American and nearly all were living below the poverty line. As an approach, CT-R focuses on identifying and strengthening personally meaningful values, interests, and hopes for the future. Providers using CT-R collaborate with individuals on what matters to them, instead of on whatever values or goals an outside party might deem appropriate.

CT-R implementation is guided by an evidence-based protocol that addresses shortcomings seen in many other CBT interventions in forensic settings (Grant, 2019; Stirman et al., 2010). A typical CT-R implementation involves stakeholder meetings, focus groups with supervisors and multidisciplinary trainees, interactive workshops (8 to 21 hours in length), and ongoing technical support or consultation (10 to 40 weeks of 30- to 60-minute sessions). Training can also include expert ratings of work samples and train-the-trainer sessions.

To date, CT-R has been implemented in mental health and justice-related settings to varying degrees in 15 U.S. states, 2 territories, and 2 municipalities at many levels of care—from community teams to residences to highly secure forensic hospital units—by providers of all levels of education holding myriad roles in care, including psychiatrists, psychologists, social workers, peer specialists, recreation and rehabilitation professionals, nurses, correctional officers, and direct care staff, among others. Formal evaluation of many of these implementation projects is underway; however, preliminary research and informal program evaluations

2 SIM is a conceptual framework that depicts the interface between criminal justice and mental health systems as a series of points of intersection (i.e., law enforcement and emergency services; initial detention and initial hearings; jail, courts, forensic evaluations, and forensic commitments; reentry from jails, state prisons, and forensic hospitalization; community corrections and community support).

show that CT-R has helped systems move long-institutionalized individuals into less restrictive environments (Grant, 2019) and has led to a notable reduction in the use of instruments of control, such as seclusion and physical and chemical restraints (Chang et al., 2014). Providers trained in CT-R also report lower rates of hospitalization, a reduction in jail days, and increased engagement with community treatment teams for the individuals they serve (Beck, Grant, et al., 2021; Grant, 2019).

CT-R in Action

The three CT-R theoretical principles—the cognitive model, the theory of modes, and attentional narrowing—constitute a framework guiding CT-R strategies and interventions. The CT-R approach is broken into five core elements—accessing, energizing, developing, actualizing, and strengthening (see Figure 3) —that serve to increase the frequency with and extent to which individuals experience their adaptive mode in everyday life. *Accessing* the adaptive mode is a process of discovery; it includes procedures to determine activities, topics, or passions (e.g., cooking, music, video games, cultural knowledge) that elicit each person's "best self" and to learn what beliefs are activated when they engage in such activities. *Energizing* is a matter of doing more; it involves increasing how often people are participating in these interests and passions within their current setting or circumstance. This increase in positive daily action creates opportunities to demonstrate skills and talents, as well as to more consistently activate positive beliefs. Taken together, accessing and energizing provide practical methods for building connection and trust—important recovery and wellness factors—between individuals and providers. *Developing* the adaptive mode is also focused on discovery; in this case, it involves finding and then vividly exploring an individual's personal aspirations for the future, which include their values, personal meanings, and positive beliefs, all of which enliven the recovery principal of hope. *Actualizing* translates aspirations into action. The person's desired future breaks down into achievable steps, and the meaning of their aspiration is experienced regularly—activity that adds purpose, a critical recovery and wellness factor. *Strengthening* the adaptive mode involves the use of targeted questions to help individuals consider meaningful conclusions about themselves, others, and possibilities for the future. Though appearing as a final step, strengthening interventions represent the core cognitive mechanism of change and take place alongside each of the other components of CT-R (accessing, energizing, developing, and actualizing). This ensures that individuals make the most of positive experiences and successes as they move through CT-R phases, make progress in recovery, and build resilience and empowerment in the face of challenges.

CT-R APPLICATIONS IN THE JUSTICE SYSTEM

Within the justice system, CT-R can be an empowering approach for any individual, regardless of their clinical or legal history and the current stage of their recovery or justice process. No level of insight, motivation, or cognitive flexibility is needed for CT-R to be appropriate, making it an excellent fit for a population often mandated to treatment, who tend to start off uninterested, disengaged, or guarded and are often ambivalent toward treatment and behavior change. CT-R allows for the use of the same framework, modality, and language across an individual's challenges, whether related to substance use, justice involvement, mental health, medical issues, or life stressors or circumstances. Individuals from minority backgrounds disproportionately find themselves in the justice system (Arya, et al., 2021; Carson & Kluckow, 2023). Despite the myriad sources of disadvantage—race, gender, education, poverty, adverse childhood events—these individuals possess dreams for the life they wish to be living. By focusing on such personalized meanings and values, CT-R is culturally conscious (e.g., Morales-Vigil et al., 2022), helping to meet needs and promote empowerment within the potential constraints and limiting contexts that people can find themselves within.

CT-R is a flexible and adaptable approach, designed to seamlessly integrate into any treatment method or system of care. It can be a standalone individual therapy, a standalone group therapy curriculum, or an add-on to other individual or group therapy approaches (e.g., an enhancement to a more structured substance use or risk management curriculum such as Thinking for a Change or Reasoning & Rehabilitation; LaPlant et al., 2021; Ross et al., 2021). For example, CT-R pairs well with Motivational Interviewing (Hettema et al., 2005; Miller & Rose, 2009): early on, when a person is in a precontemplative stage, CT-R can tap into motivation, and later, aspirations can guide the values-based discussion of what the person would like to be doing instead of using substances. In group therapy settings, CT-R can formalize and enhance some of the important and effective elements seen in treatment

FIGURE 3. The Five Core Elements of CT-R

PHASES	MISSION
Accessing the adaptive mode	**Initiating Connection** • Build trust and connection • Identify interests and passions to elicit a person's best self outside of their justice involvement • Activate positive beliefs (e.g., "I am capable," "I belong," "I can have fun")
Energizing the adaptive mode	**Expanding Connection** • Extend connection and trust • Make the experience of the adaptive mode more predictable and frequent while balancing forensic responsibility • Generalize positive beliefs beyond "one time only"
Developing the adaptive mode	**Fostering Hope** • Identify long-term targets ("aspirations") that embody a person's desired future • Make these targets a powerful source of motivation and hope (enrich with imagery) • Understand the values underneath a person's desired future (i.e., why is it important to them?) • Set the course for intentional action toward what is important, meaningful, and hopeful
Actualizing the adaptive mode	**Taking Action** • Plan and take action toward aspirations or underlying meaning • Action provides context for navigating challenges and adhering to justice-related responsibilities • Notice how current action gets them closer to their aspirations
Strengthening the adaptive mode	**Capturing the Positive, Successes, and Resiliency** • Collaboratively draw conclusions about experiences and what they mean about the self, others, and the future • Strengthen key positive beliefs (related to themes like connection, capability, value, energy, and control) • Strengthen resilience beliefs as individuals take steps toward their future, experience success, and navigate challenges

communities, peer support, and 12-step approaches. Research highlights the importance of social factors as a mediator of recovery, particularly in 12-step programming built on tenets of social group and mentorship (Groh et al., 2008). Standalone CT-R or CT-R–informed groups incorporate similar principles (social components of group programming, encouraging group collaboration, roles for contribution and mentorship) while using individuals' interests, passions, and dreams as a point of connection between participants. These added elements improve standard programming by blending the effective elements of peer support programs with evidence-based treatment.

CT-R can also be employed as a clinical style, informal intervention, and treatment framework that makes it especially well suited to the range of roles involved in the justice system and to team-based care. CT-R provides a common language and tools that can be used by the range of provider roles an

individual encounters in their recovery or justice process (e.g., court staff, recovery coaches, correctional officers, therapeutic community direct-care staff), regardless of the type of setting they work in or their scope of work. This is a great advantage of the approach, given the range of provider types seen across substance- and justice-related treatment and the frequent use and established benefit of peer support in substance use recovery and in rehabilitation for justice-involved individuals (Bagnall et al., 2015; Eddie et al., 2019; Ray et al., 2021). Importantly, in team-based settings, CT-R provides a unifying language and framework that all team members can use to develop a shared understanding of an individual's strengths and to coordinate efforts to collectively produce better outcomes for individuals who present with complications of justice involvement together with substance use challenges.

CT-R has been adapted to empower individuals facing hurdles at each intercept along the SIM (Abreu et al., 2017; Munetz & Griffin, 2006). For example, crisis call workers have used CT-R formulations to understand the unmet needs of frequent callers (e.g., connection, control, safety), creating more effective ways to guide these conversations, deescalate crises, and tap into motivation to follow through with service linkage. CT-R has been used in carceral settings, as a complement to existing groups or medication for substance use disorders, and to develop or sustain internal motivation to reduce substance use (e.g., aspirations, connections, meaningful life activities) and plan for next steps (e.g., continued treatment, community reentry). CT-R's focus on the bigger picture—a desired and meaningful life—can complement any theoretical approach to substance use treatment, whether abstinence based or supported by medication or harm reduction principles. This perspective also facilitates discharge and reentry planning and can guide meaningful action individuals can take while incarcerated to decrease the feeling that life is "on pause."

What CT-R Adds

First and foremost, CT-R adds a strengths-based and person-centered perspective to understanding an individual's challenges. This is especially important for the unique combination of justice involvement and substance use, as this group tends to be highly stigmatized both in treatment settings and in the community (Feingold, 2021; Sinko et al., 2020). By zooming out, focusing on a person's strengths, and planning action toward rebuilding an identity and a life outside of justice- and substance-related challenges, providers and community members develop a fuller picture of the individual that counters self-stigma (e.g., defeatist beliefs, negative views of the self) that underlies service nonengagement, return to use, or recidivism. The CT-R approach builds on and goes beyond existing rehabilitation models for justice-involved individuals (e.g., Thinking for a Change, Moral Reconation Therapy, Reasoning & Rehabilitation; LaPlant et al., 2021; Little & Robinson, 1988; Ross et al., 2021) by conceptualizing substance use as a clinical target that, when addressed, moves a person closer to their desired life. CT-R aligns with the ethos of the Good Lives Model (Ward & Stewart, 2003), another common framework in forensic rehabilitation, and expands on it by providing more concrete strategies toward actualization of a meaningful life.

CT-R improves connection and engagement within several domains that directly mirror the "big eight" risk factors (criminal history, antisocial personality pattern, antisocial cognitions, criminal companions, substance use, poor family/marital relationships, poor educational/vocational achievement, lack of prosocial leisure activities; Bonta & Andrews, 2007). Dynamic risk factors such as education/vocation, leisure activities, and family/peers are all directly addressed with CT-R through strategies targeting connection, identity, and action toward aspirations. CT-R approaches these risk factors by considering what an individual wants to increase within these domains and building action in line with that, rather than directly considering how to decrease problematic behaviors or circumstances related to these risk factors. This fully embodies the strengths-based approach, enhancing engagement and buy-in with services. CT-R can indirectly impact risk factors related to criminal thinking patterns by strengthening positive beliefs about the self, others, and the future. For example, by invigorating beliefs such as "I am a good person," "I can contribute positively," and "I can have success or a promising future," a person may be able to resist acting on opposite thought patterns (e.g., "I'm a failure," "I'm a bad person," and "Why bother?") that can precipitate criminal behavior. CT-R's focus on positive beliefs empowers individuals to rewrite their self-perception, leading to increased positive action, resilience, and a focus on the future rather than shame related to their past.

In addition to diminishing dynamic risk factors, CT-R includes interventions that increase recovery capital and intrinsic motivation (Morris et al., 2022) for sustained recovery in the community. CT-R's person-centered perspective is galvanized in aspirations—life ambitions that guide treatment—contextualizing all action around the individual's desired life. Providers help individuals build their intrinsic motivation and momentum for treatment by framing treatment goals as part of a bigger picture that gets the individual closer to the life aspirations they've identified. In inpatient or secure facilities, providers focus on the underlying meaning of aspirations, allowing individuals to live their values even in a restrictive environment. If, for instance, an individual hopes to be employed as a teacher, they can find ways to help or teach others in their current setting, regardless of whether community release or teaching is feasible. For individuals reentering the community, the intrinsic motivation of aspirations and their underlying meaning spur sustainable access to willpower to complete the difficult work involved in reentry or community monitoring (e.g., probation or parole), including changing behavior related to substance use, in service of their desired life. This focus on intrinsic motivation overcomes the limitations of care approaches such as contingency management that rely on extrinsic motivators, such as money, to drive participation in care. It has been repeatedly shown that reward-based protocols lose efficacy once the rewards cease being given (Davis et al., 2016). Across all levels of care, CT-R enables providers to focus on the whole person (interests and aspirations), tap into the intrinsic motivation, and increase recovery capital. Treatment is framed as a way to achieve individualized goals, thereby decreasing the treatment-related burden for each person.

PRAGMATIC STRATEGIES AND PRACTICES

To illustrate the advantages that CT-R brings to day-to-day treatment, we will consider an impactful intervention, the Recovery Image; a powerful strategy, guided discovery; and a useful practice, the Recovery Map.

Recovery Image

A primary aim of CT-R is to build hope for the future through the development of personally meaningful and value-driven aspirations. Hope and resilience are crucial for recovery and are shown to be linked to physical and mental health outcomes (Duggal et al., 2016). However, the life stressors experienced by justice-involved individuals can have a profoundly negative impact on their hope and well-being (Gottfried & Christopher, 2017; Moore et al., 2021). One CT-R intervention to decrease this sense of hopeless is the Recovery Image, a rich, vivid idea representing the person's desired future. A Recovery Image can take many different forms; for some it may be a vision board, for others a photograph, hand-created image, word cloud, or quote. Making a Recovery Image is a collaborative endeavor, combining principles from cognitive neuroscience and sports psychology (Hackmann et al., 2011) that helps to destigmatize the intervention and foster connection and teamwork between the individual (who is in the driver's seat) and the provider.

Imagery-based questions help develop a rich and exciting Recovery Image, as imagery is often better than language for tapping into positive emotion and motivation (Burton & Lent, 2016). Sensory-based queries and questions that elicit emotions and key beliefs drive the creation of the Recovery Image (see Table 2). For example, wanting to stop drinking alcohol and remain crime free becomes, with questioning, an image of restarting Sunday family dinners, cooking together, sharing stories of the week, and watching children play—tapping into values of family connection, security, capability (through sharing skills of cooking), and contribution (giving back to the family). This image and its meanings can help to conjure internal strength when life stress stirs up cravings or criminal thoughts.

A Recovery Image can be translated into an external memory aid through the creation of pictures, vision boards, word clouds, memes, etc., which can help the person focus their attention on what is most important to them. Frequently recalling the Recovery Image, especially at regular (e.g., each morning) and strategic times (e.g., when stressors arise), can spark the person's adaptive mode. Regular experience of their "best self," complete with the positive beliefs and emotions and hope for the future, sets the course for purposeful action toward that image—a powerful buffer against future criminal behavior or substance use. The Recovery Image can also serve as a physical reminder of "why," a catalyst for intrinsic motivation that justifies the hard work that recovery and desistance from crime require. In the case of the person who wants to stop using and remain crime free for their family, they can mentally place themselves in the scene of their richly imagined

TABLE 2. Elements of Recovery Imaging

Process	Mission	Types of Questions to Ask
Developing the Recovery Image	• Identify the what, where, and with whom aspects of the Recovery Image. • Use imagery and the senses.	• What will your day look like? • Where do you see yourself doing that? • Who will you be doing things with? • Paint me a picture.
Uncovering meaning	• Identify unique and personal meanings and values.	• What would be the best part? • What would it say about you to accomplish this? • How would you see yourself? • How might others see you?
Using the Recovery Image in moments of distress	• Collaborate with the individual on ways to bring this image to mind during distressing moments.	• What challenges do you anticipate coming up? • When might it be worth revisiting this image? • What is something you could do during challenging moments to help refocus on things that are important to you?

aspiration (e.g., family dinners) to consider how potential courses of action contribute to or go against getting them closer to that dream—a method for placing any action the person takes in the context of their aspirations.

Guided Discovery

The mechanism of change for CT-R is positive beliefs. Providers collaborate to make these key beliefs about self, others, and the future more accessible, with the person endorsing them with greater conviction. Starting in the 1960s, Beck theorized that individuals were more likely to internalize and sustain useful meanings if they were asked questions instead of being directed in how and what to think. Termed "guided discovery," this strategy helps individuals notice their own success, strength, and resilience. Examples include "I am a capable person," "Other people appreciate me," and "I have overcome a lot before, and I can do it again."

The selection of guided discovery questions arises from the relationship between the provider and the individual, as well as the type of success the person is experiencing. For example, an individual enjoying themself at a social gathering without drinking might prompt, "It seems like you may have more control over your drinking than you thought; do you agree?" or "It seems like you were able to have a good time with other people without needing to drink; what does that say about you? Perhaps that you're likable, even without alcohol?" These questions allow the person to consider strengths they may have and, in this example, bolster positive beliefs related to control and connection, respectively. Another way providers develop guided discovery questions is to turn a compliment or positive feedback into a question. For example, when an individual submits another job application after having been rejected several times due to their legal history, a compliment about strength or perseverance can be expressed as, "You're a very resilient person; do you agree?" or "I can see that getting a job is really important to you, and your determination is remarkable; what do you think?" Or a provider might notice that the individual is low energy, play a game of cards with them, and say, "Wow! I am feeling a lot more awake now that we played that game together. Do you notice that too?" Another example: "Before you met with the peer provider, you said you'd never be able to make it through the afternoon without drinking. Did that go better or worse than you expected?"

Ultimately, guided discovery has the most impact when repeated across a multitude of situations and experiences to strengthen and sustain the person's positive beliefs about themself, others, and the future. See Table 3 for examples of guided discovery questions broken down by types of conclusions.

TABLE 3. Guided Discovery Questions				
Energy	**Mission**	**Connection**	**Control**	**Contribution**
"It seems like when we were talking about [interest/activity], we felt more awake. Did you notice that, too?"	"Since you were able to get through [that tough court hearing/challenge], is it possible you might be able to get through other difficult things?"	"If you're able to connect with [me/peer], is it possible you will be able to make new connections [once you're released/in the recovery community]?"	"Wow! You were able to work through that challenge [without using/getting aggressive]. Is it possible you have more control than you thought?"	"It seems like helping others is a big part of who you are. What do you think?"
"Did you enjoy doing this together? Would it be worth trying it again next time?"	"You really know a lot about [area of knowledge], don't you?"	"It looks like by working together, you and [your peer/I] were able to accomplish a lot. It's pretty worthwhile to do things with other people, don't you agree?"	"It is so great you were able to do that! Do you think that's getting you closer to [returning to the community/aspiration]?"	"It seems like everyone appreciated you helping out during program today. Did you notice that, too?"
"What does it say about you that...?"				

Recovery Map

A one-page document to guide CT-R work helps providers and team members create strategies and interventions focused on positive daily action the person can take to pursue their desired life case. It is also a place to consider beliefs that contribute to an individual's flourishing or feeling stuck. This form is the CT-R Recovery Map (Table 4).

The Recovery Map captures information about the person's strengths, areas of knowledge, aspirations for the future, and challenges that get in the way. In addition, it includes areas for providers to include, or hypothesize, beliefs that contribute to them feeling at their best or feeling challenged. With both risk and protective factors, facets of recovery capital, and internal beliefs captured in the Recovery Map format, the bottom row, "Positive Action and Empowerment," becomes a place to develop and plan for meaningful action steps in treatment, including strategy, intervention, and therapeutic target.

Team-based care is a best practice for individuals with justice involvement and co-occurring challenges with substance use. CT-R enhances the effectiveness of such teams with the Recovery Map. All members of the team (e.g., clinicians, legal stakeholders, case managers, peer providers) can pool information to create Recovery Maps. Strategies

TABLE 4. CT-R Recovery Map	
Accessing and Energizing the Adaptive Mode	
Interests/ways to engage:	Beliefs activated while in adaptive mode:
Aspirations	
Goals:	Meaning of accomplishing identified goals:
Challenges	
Current behaviors/challenges:	Beliefs underlying challenges:
Positive Action and Empowerment	
Current strategies and interventions:	Belief/aspiration/meaning/challenge targeted:

and interventions can fit particular team members' unique roles and resources (e.g., case managers may work on service linkage and vocational goals, clinicians may work on empowerment related to urges to use, peer providers may work on engaging the individual in meaningful daily activities to replace time spent using and buffer against crime). Recovery Maps can also communicate a whole-person picture to legal teams and future providers. Often, various aspects of the person's unique strengths or needs can become displaced across a complex care system, causing a person's impression on paper and through legal records to look very different from the actual person. The Recovery Map provides an opportunity to collectively merge this information, provide a more strengths-based picture, guide cross-discipline treatment planning, and foster a collaborative approach across all justice- and treatment-related partners.

NEXT STEPS: TESTABLE PROGRAM EVALUATION HYPOTHESES

CT-R is a promising practice within the justice system designed to improve outcomes. It can be particularly empowering for individuals who experience substance-related challenges. In this section, we propose testable hypotheses for future adopters of CT-R implementation and program evaluation.

1. CT-R implementation will result in CT-R program fidelity. The CT-R Implementation Quality Scale (Beck, Grant, et al., 2021) is a rating scale created by the developers of CT-R that allows programs or services to collect pre- and post-implementation data to measure uptake of and fidelity to the CT-R model.
2. The quality of CT-R implementation will mediate outcomes. The greater the degree to which the program or services are providing CT-R (measured using the CT-R Implementation Quality Scale), the more the individuals participating will improve on outcomes of interest (e.g., recidivism, substance use, mental health symptoms, quality-of-life outcomes).
3. CT-R will improve outcomes. Outcomes of interest are vast, including but not limited to:
    a. Programmatic outcomes—Participation, engagement, service linkage, completion rates, program satisfaction
    b. Justice-related outcomes—Fewer jail days, decrease in criminogenic risk factors, reduced recidivism rates, shorter time on treatment mandates, in drug treatment court, or on community supervision
    c. Clinical and psychological outcomes—Reduction in reported substance use and positive drug tests, improvement in recovery capital, improved mental health symptoms, improved quality of life, positive beliefs, higher self-esteem, hope for the future
    d. Systemic outcomes—Staff satisfaction and efficacy, cost savings

As CT-R continues to expand across the SIM to empower justice-involved individuals with substance use challenges, it is imperative that implementation not outpace the evidence. Programs and services adopting CT-R should scaffold implementation with quality program evaluation to ensure efficacy within the system of dissemination and add to the growing literature base.

SUMMARY

CT-R innovates and enhances existing CBT approaches for individuals in the justice system who experience substance use challenges. Specifically, CT-R adds a strengths-based, whole-person framework, enhancing and sustaining engagement and producing efficient treatment of substance use, justice-related, mental health, or stressor-related challenges. CT-R goes beyond traditional CBT by creating opportunities to reconnect to meaningful identity, work toward a desired future, and strengthen a positive belief system that can neutralize negative beliefs related to continued substance use or criminogenic risk. Programs could benefit from implementing CT-R, with readily tested hypotheses for evaluating its impact. For so long, justice-related interventions (particularly for individuals who use substances) have been inadvertently stigmatizing, focusing heavily on the reduction of negative behaviors and patterns so as to produce success in the community. With CT-R, we hope to forge a new path forward, expanding the definition of success to go beyond avoiding negatives by incorporating positive action and meaning in the pursuit of a desired life.

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The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

ATTESTATION OF ORIGINAL WORK

The authors attest that:

- The content of the manuscript is the original work of the authors and has not been previously submitted or published elsewhere.
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