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# Navigating barriers and embracing facilitators of connection: insights from peer recovery specialists working with individuals with substance use disorder and criminal justice involvement: a qualitative analysis

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## Abstract

**Background** Substance use disorder affects over half of incarcerated individuals, with 23% experiencing opioid use disorder specifically. Addressing opioid use disorder in jails is crucial due to its association with increased recidivism and overdose. This study investigates the experiences of peer recovery specialists working with individuals with opioid use disorder and criminal justice involvement, focusing on barriers and facilitators to client connections. Qualitative interviews were conducted and thematically analyzed using a hybrid inductive and deductive coding approach. The sample involved five peer recovery specialists, who were interviewed multiple times, across three sites in Virginia between August 2022 to December 2023.

**Results** This analysis categorized findings into two main domains: barriers to connection and facilitators of connection. Within the barriers to connection, six themes emerged: jail specific restrictions, client in withdrawal, social determinants of health insecurities, lack of client engagement, disconnection, and adverse peer recovery experience. Jail-specific restrictions was the most common barrier to connection with 91.30% of transcripts referencing at least one code for jail-specific restrictions; 73.91% of all transcripts indicated social determinants of health insecurities; 56.52% of all peer recovery specialist transcripts experienced clients in withdrawal; 52.17% of all transcripts identified lack of client engagement; 43.48% of all transcripts identified disconnection as a barrier; and 34.78% of all transcripts indicated adverse peer recovery specialist experiences. Three themes were identified as facilitators of connection: peer communication skills, connection to services, and positive peer recovery specialist experience. Peer communication skills were by far the most prominent, with 100% of all transcripts indicating a code related to peer communication skills; 60.87% of all transcripts indicated positive peer recovery specialist experience; and 56.52% of all transcripts identified connection to services as a facilitator. Notable discrepancies in code frequency were observed across different sites, suggesting site specific challenges.

**Conclusion** This study offers valuable insights into enhancing peer-based support programs within the justice system for individuals with opioid use disorder. Barriers such as jail specific restrictions, client withdrawal, and social

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determinants of health insecurities pose significant challenges, while effective communication emerges as a critical facilitator. Findings emphasize the need for collaborative efforts between justice and recovery partners to optimize the impact of peer-based support services.

**Keywords** Peer Recovery, Peer Support, Reentry, Opioid Use Disorder, Criminal Justice, Jail, Substance Use, Recovery, Incarceration, Opioid Treatment

## Background

### Substance use disorder and incarceration

Substance use disorder (SUD), particularly opioid use disorder (OUD), is prevalent within the U.S. criminal justice system, with more than half of incarcerated individuals experiencing SUD and 23% suffering from OUD specifically (Kang et al., 2024). This population is especially vulnerable during the reentry process, with approximately 600,000 individuals transitioning from incarceration to the community annually (Ray et al., 2021). Upon reentry, individuals with OUD are at a significantly increased risk of opioid relapse and overdose, particularly during the first few weeks post-release (Binswanger et al., 2007). However, the resources available to support this population, particularly those that address the unique challenges of transitioning out of incarceration, remain insufficient (Ray et al., 2021).

### Peer recovery specialists and incarceration

Peer Recovery Specialists (PRSs) have emerged as a promising intervention to support justice-involved individuals with SUD, particularly those transitioning out of jail or prison (SAMSHA, 2023). PRSs are individuals with lived experience of recovery from mental health or substance use disorders who are trained to offer non-clinical, peer-based support (DBHDS, 2024). Their role is to build trust and rapport with individuals, providing emotional support, advocacy, and resource navigation to facilitate successful recovery and reentry. PRSs are uniquely positioned to break down barriers to treatment by leveraging their shared experiences, thereby fostering a sense of connection that traditional healthcare professionals may struggle to achieve (Bassuk et al., 2016).

While there is ample evidence supporting peer recovery services there remains a need to expand research of various peer-specific interventions and recovery outcomes (Stack et al., 2022). While peer recovery services are often regarded as a valuable tool in promoting recovery, there is a need for additional research to understand the experience of peers and their impact on substance use outcomes (Eddie et al., 2019).

### The role of MOUD in addressing withdrawal and supporting recovery

Medication for Opioid Use Disorder (MOUD) is a well-established, evidence-based treatment for OUD, particularly in reducing the risk of opioid relapse and overdose (Lee et. al., 2015; SAMSHA, 2019; ). MOUD includes FDA-approved medications such as methadone, buprenorphine, and naltrexone, which work to stabilize individuals by reducing withdrawal symptoms and cravings (SAMHSA, 2024). Despite its efficacy, access to MOUD in correctional settings remains severely limited. In 2021, less than 1% of the Federal Bureau of Prisons population received MOUD (Homans et al., 2023), and barriers to its implementation include institutional stigma, fragmented communication between correctional and healthcare systems, and lack of funding (Booty et al., 2023).

While MOUD and peer recovery support services are distinct interventions, they are complementary in addressing the needs of justice-involved individuals with OUD. By building trust and rapport, PRSs can help clients navigate the stigma around MOUD, advocate for its use, and connect individuals to MOUD services in both carceral and community settings. Within the Empowered Communities Opioid Project (ECOP), for example, PRSs worked closely with healthcare providers and justice partners to identify individuals in withdrawal and ensure they were connected to MOUD as part of a comprehensive recovery plan.

### Barriers to implementing peer recovery services in jail settings

There are multiple barriers to implementing peer recovery services in carceral settings. First, there are systemic barriers related to the structure of correctional facilities. PRSs often face difficulties accessing clients due to institutional restrictions such as lockdowns, limited meeting spaces, and fragmented communication with correctional staff (Eddie et al., 2019). Additionally, there are broader challenges related to the integration of PRS roles within the healthcare and criminal justice systems.

Further, stigma associated with both SUD and peer recovery services presents an ongoing barrier to the successful implementation of these programs. Stigma can

manifest at multiple levels, from correctional staff who may hold negative perceptions of individuals in recovery to institutional policies that hinder the ability of PRSs to carry out their duties. Additionally, PRSs may face personal challenges related to emotional exhaustion, particularly when working in high-stress environments like jails (Eddie et al., 2019). These barriers must be addressed to optimize the delivery of peer recovery services in carceral settings.

#### Empowered Communities Opioid Project (ECOP)

Empowered Communities Opioid Project (ECOP) is a program through George Mason University's Empowered Communities Program that provides peer-based recovery services to individuals with OUD and criminal justice involvement. Supported by a network of criminal justice partners, ECOP team members screen individuals for substance use disorders and refer them to peer recovery specialists within the program. ECOP PRSs engage with clients in jails or in the community, aiming to establish rapport pre-release, offer support, facilitate access to services, and ensure seamless transition into the community. Following a "hub and spoke" model, George Mason University serves as the central hub, collaborating with justice partners across five high-need health districts in Virginia.

#### How this study contributes to the literature

This study seeks to advance the understanding of how peer recovery services function in carceral settings by examining the specific barriers and facilitators PRSs encounter in their work. Through qualitative inquiry, this research provides a detailed exploration of the lived experiences of PRSs, focusing on the unique challenges they face in navigating complex systems and interacting with clients in restrictive environments. By focusing on PRS roles within ECOP, this study sheds light on peer experiences of barriers and facilitators of connection with their clients.

While there is a growing body of literature on peer recovery services, much remains unknown about their specific impact on justice-involved populations. This study contributes to the field by offering new insights into the operational challenges of PRSs in jails and identifying potential areas for future research. Understanding these challenges is essential to developing targeted interventions that can support PRSs in their roles and enhance the

## Methods

#### Research design

This study utilized the thematic analysis framework by Braun and Clarke (2006) to review the responses of 23 open-ended surveys from peer recovery specialists in ECOP. These interviews were collected between August 2022 and December 2023, utilizing a pre-written survey format that allowed for follow-up questions from interviewers. Four researchers utilized a hybrid descriptive coding approach, utilizing predetermined codes and modifying these codes during multiple revision processes. This led to the identification and application of 35 final codes utilized for transcript coding.

#### Research team

The interviews were conducted by five research assistants, four female and one male. The interview team were employees of the ECOP program. The research team was based in Virginia and affiliated with George Mason University.

#### Participants

Interviews from five peer recovery specialists, 3 male and 2 female, were evaluated for this study. All PRSs were employees of ECOP and were selected based on their involvement in this program, with none declining voluntary participation in the interviews. Participants worked in three distinct locations across Virginia: two urban sites (Site 1 and Site 2) and one site with a mixed urban–rural population (Site 3). Most interviews were completed by three PRSs representing Site 2 and Site 3. While two PRSs were based in Site 1. There were nine surveys from Site 1, thirteen from Site 2, and one from Site 3. Of note, the interviews from Site 2 and Site 3 were combined during analysis due to the proximity of these localities.

#### Data collection

These 23 surveys were conducted virtually by trained research assistants, with only the research assistant and the participant present during each session. The interviews followed a semi-structured survey approach, allowing for both guided questions and open-ended responses to encourage elaboration on key topics. PRSs were solicited for voluntary interviews intermittently over the course of one year and four months.

Version 2, a more detailed survey format consisting of 24 open-ended questions, was used in 20 interviews. This version explored various aspects of the PRS role, including initial interactions with clients, barriers to establishing connections, the skills used during engagement, emotional responses, follow-up in the community, concerns about client well-being, and the client handoff process.

Version 3, a simplified version with 8 open-ended questions, was utilized in 3 interviews to enhance conciseness and improve the efficiency of data collection. Although

shorter, this version focused on the same key themes, particularly initial client interactions, barriers to engagement, client needs, and skills utilized by PRS.

The semi-structured nature of the interviews allowed research assistants to engage with participants in a flexible manner, prompting them to expand on or clarify their responses when necessary. Each interview lasted approximately 1 h. Although transcripts were created from the interviews, they were not returned to participants for review or correction.

### Data analysis

Following the interviews, transcriptions were carefully edited for clarity by the research team. The finalized transcripts were then analyzed using NVivo software, enabling a comprehensive qualitative analysis. The thematic analysis followed Braun and Clarke's (2006) model, progressing through six phases.

In Phase 1, four researchers familiarized themselves with the data by thoroughly reading the transcripts and suggesting preliminary codes. In Phase 2, the team engaged in initial coding, developing codes based on their understanding of the transcripts and their expertise in the field. In Phase 3, the researchers generated themes by clustering related codes and identifying common patterns. Phase 4 involved reviewing these themes through team discussions, leading to further refinement and reorganization. In Phase 5, the research team defined and named the themes, ensuring clarity and coherence. Finally, in Phase 6, the researchers finalized the titles of the themes.

Throughout this process, a hybrid coding approach was used (Fereday & Muir-Cochrane, 2006). Initially, 36 deductive codes were applied based on the researchers' prior experience and familiarity with the transcripts. However, as the analysis progressed, 13 inductive codes were added, and 14 more were ultimately removed in response to emerging patterns within the data, ensuring a comprehensive and flexible approach to the thematic analysis.

## Data analysis

Interviews were transcribed using Microsoft Teams and evaluated for qualitative themes using NVivo software. The frequency of codes and themes were identified using exported data from the NVivo software and further compared for accuracy using a coding matrix. To enhance the interpretive process, graphic visualizations were generated using Microsoft Excel and Tableau.

## Results

We found that the experience of PRSs working with individuals with SUD and criminal justice involvement centered around 2 overarching themes: barriers to connection and facilitators of connection. Connection was defined by the PRSs ability to build initial rapport with the client while incarcerated. Jail-specific restrictions was the most common barrier to connection with 91.30% of all transcripts referencing at least one code for jail-specific restrictions; 73.91% of all transcripts indicated SDOH insecurities; 56.52% of all PRS transcripts experienced clients in withdrawal; 52.17% of all transcripts identified lack of client engagement; 43.48% of all transcripts identified disconnection as a barrier; and 34.78% of all transcripts indicated adverse PRS experiences. Three themes were identified as facilitators of connection: peer communication skills, connection to services, and positive PRS experience. Peer communication skills were by far the most prominent, with 100% of all transcripts indicating a code related to peer communication skills; 60.87% of all transcripts indicated positive PRS experience; and 56.52% of all transcripts identified connection to services as a facilitator. Graphs for theme occurrence in all transcripts can be found in Fig. 1 and for code occurrence in all transcripts can be found in Fig. 2.

### Barriers to connection

#### *Jail-specific restrictions*

Jail-specific restrictions was the most common barrier to connection, referenced in 91.30% of all transcripts, and making up 31.78% of all barriers to connection themes. This category represented PRS discussion of factors related to the patient's incarceration status that impeded meaningful connection. A graph of all barriers to connection can be found in Fig. 3**.** We attributed 6 codes to the theme of jail-specific restrictions: hard to hear, client referrals, guards or staff, jail lock-down, lack of privacy, and stigma. Client referrals represented instances in which a PRS discussed not receiving the referral of an individual who met criteria for substance use or was in withdrawal. The category of guards or staff represented instances in which PRSs discussed a guard restricting their ability to meet a client, either intentionally or due to facility resource constraints. Stigma represented instances in which PRS respondents conveyed feelings of themselves or their clients being judged based on previous life experience.

The most common codes used were guards or staff, hard to hear, and lack of privacy. Guards or staff was the most common code for jail-specific restrictions and came up in 17 interviews (73.90%). One PRS provided an example that highlights this issue well: "I was in there

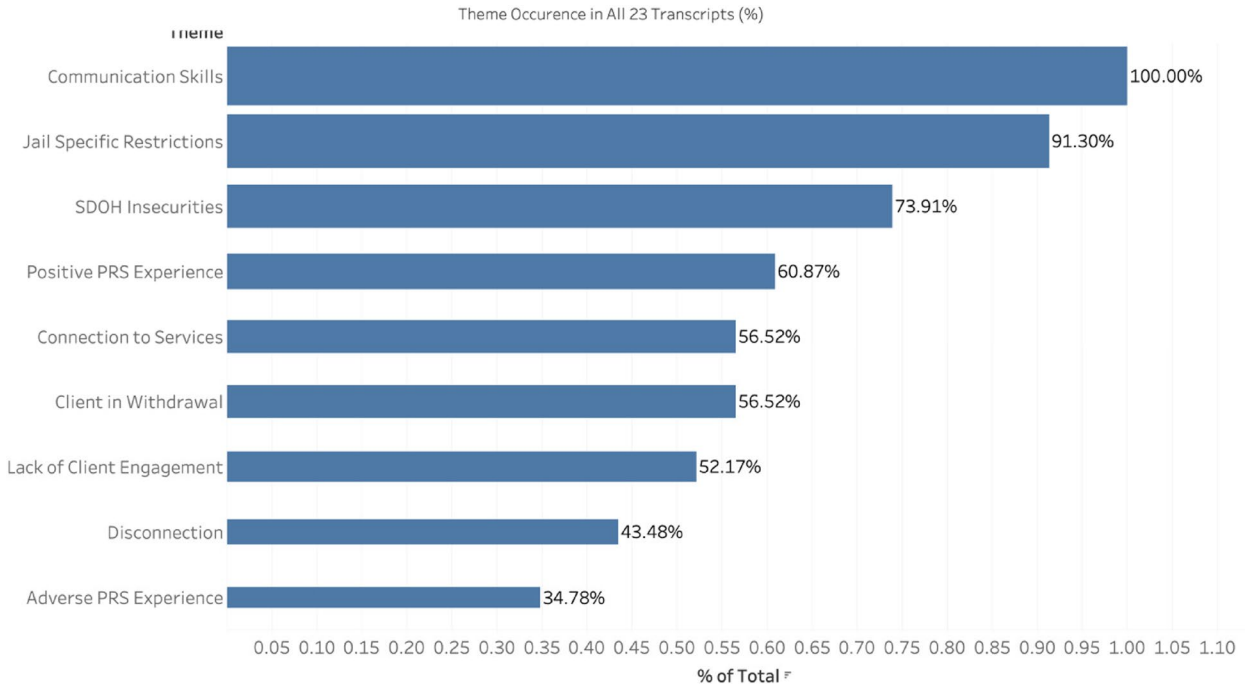


**Fig. 1** Theme Occurrence in All 23 Transcripts (%)

with an escort, which is hard to get, and I actually talked to 20 people. So just imagine all the other days, which has been over probably two months now, that I have not been able to go into that particular area," (Transcript 18). Hard to hear was the next most common jail-specific restriction code, coming up in 11 (47.80%) PRS interviews. This code was used to identify areas where the setting in which the PRSs were meeting the client made it difficult to hear; for example, if the room was loud, or if the PRS had to speak through a slot in the cell door. Lack of privacy was another common jail-specific code, referenced in 5 interviews (21.70%). This was identified as a barrier to connection because PRSs often experienced that when meeting clients in jail with other people around, whether it be guards or cellmates, the clients were less likely to be open about their SUD struggles, limiting the PRS' ability to connect.

#### *Social determinants of health*

SDOH insecurities was the second strongest barrier to connection, identified in 73.91% of all transcripts and comprising 24.08% of the barriers to connections. We utilized 5 codes for this theme: financial, housing, medical, transportation, and lack of support. The most common codes were housing, medical, and transportation.

The graph in Fig. 4 depicts the breakdown of SDOH insecurities in all 23 transcripts. In both initial conversations in jail and in follow-up conversations in the community with clients, PRSs mentioned housing most frequently as a need for clients, being referenced in 10 interviews (43.50%). Housing challenges made it difficult for clients to maintain stable living conditions, which disrupted their ability to engage with recovery services consistently.

Medical and transportation SDOH insecurities were the next most common, both being referenced in 7 interviews (30.40%). Medical concerns were often referenced about a client needing connection to Medicare/Medicaid, but also sometimes about chronic conditions the client may have been dealing with. These factors can reduce the client's ability or motivation to participate in the program and hinder their willingness or capacity to engage with the PRS. For example, "So this particular guy, he was violated because he was in the hospital. He has stage 4 leukemia," (Transcript 14) and "They didn't mention much, but what they did mention was physical health, with her leg," (Transcript 7).

#### *Lack of client engagement*

Lack of client engagement was identified in 52.17% of all transcripts and was the third most referenced theme among barriers to connection, making up 16.28% of barriers to connection themes. Codes utilized within this theme described the PRS' perceived commitment of the client to the ECOP Program and recovery. We identified

## Occurrence of Codes in All 23 Transcripts

| Themes | Codes | Combined Total |
|---|---|---|
| Adverse PRS Experience | Disappointed | 2 |
| | Frustration | 2 |
| | Helpless | 7 |
| | Uncomfortable | 1 |
| Client in Withdrawal | Withdrawal | 13 |
| Communication Skills | Asking Questions | 9 |
| | Building Rapport | 14 |
| | Business Cards | 9 |
| | Communication | 15 |
| | Sharing Personal Story | 16 |
| Connection to Services | Referrals (to Community) | 10 |
| | Resource Navigation | 6 |
| Disconnection | Leaving area or not local | 1 |
| | Lost to follow-up | 2 |
| | No phone number | 2 |
| | Reincarceration | 6 |
| Jail Specific Restrictions | Client Referrals | 3 |
| | Guards or staff | 17 |
| | Hard to Hear | 11 |
| | Jail lock-down | 1 |
| | Lack of Privacy | 5 |
| | Stigma | 4 |
| Lack of Client Engagement | Not ready | 5 |
| | Not receptive | 6 |
| | Overwhelmed | 5 |
| | Unmotivated | 5 |
| Positive PRS Experience | Confidence | 12 |
| | Empathy | 1 |
| | Fulfillment | 4 |
| | Pride | 6 |
| SDOH Insecurities | Financial | 4 |
| | Housing | 10 |
| | Lack of support | 3 |
| | Medical | 7 |
| | Transportation | 7 |

Combined Total: 1 – 17

**Fig. 2** Occurrence of Codes in All Twenty-Three Transcripts

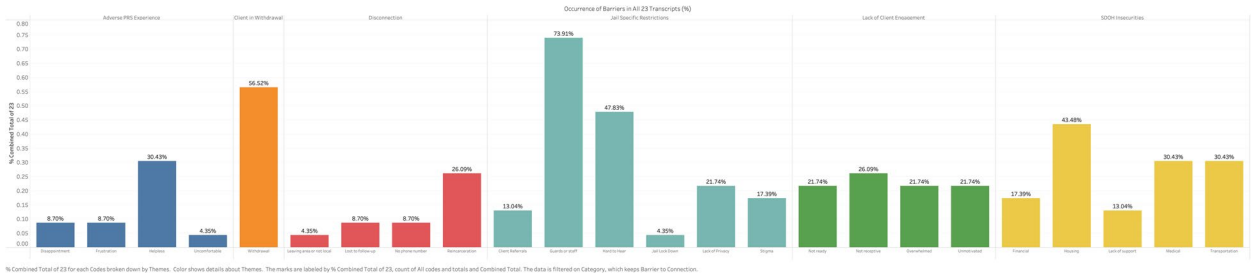


**Fig. 3** Occurrence of Barriers in All Twenty-Three Transcripts

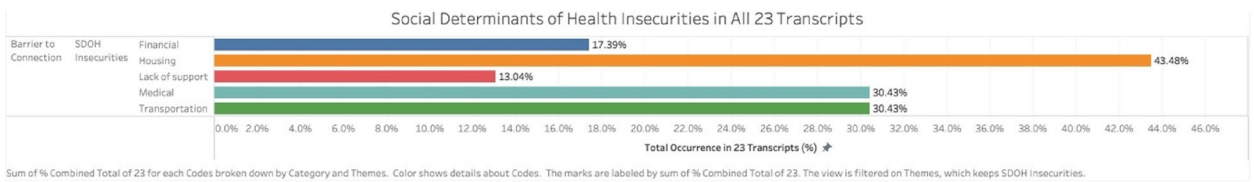


**Fig. 4** Social Determinants of Health (SDOH) Insecurities in All Twenty-Three Transcripts

4 codes for this theme: not receptive, overwhelmed, not ready, and unmotivated. The client being not receptive to the PRSs efforts was referenced the most, coming up in 6 transcripts (26.10%). Overwhelmed, not ready, and unmotivated were all referenced an equal number of times, coming up in 5 transcripts (21.70%) each.

#### *Client in withdrawal*

The client being in active withdrawal was referenced in 56.52% of all transcripts, making up 10.08% of all barriers to connection themes. Withdrawal was the only code assigned to this theme and was discussed regarding the initial meeting in jail between the PRS and the potential client. Withdrawal was referenced in 13 interviews (56.50%). In interviews, PRS' pointed out that when the client was feeling symptoms of withdrawal, they were not motivated to speak about recovery and the services that the PRS could provide. Additionally, clients were sometimes too physically ill from the symptoms of withdrawal to have a conversation altogether. For example, "The fact that she was going through withdrawal. Like that's a hard time to really, to get somebody's attention," (Transcript 13). We observed several informative areas of overlap with withdrawal and other codes and themes. First, 9 out of the 13 transcripts (69.20%) that referenced at least one lack of engagement code also stated that the client was in withdrawal. Notably, 5 of the 6 (83.30%) transcripts where the client was perceived as being not receptive to the PRS, also noted that the client appeared to be in withdrawal. Second, 6 out of the 7 transcripts (85.70%) where it was identified that the PRS felt helpless, the client also appeared to be in withdrawal. Finally, among transcripts where reincarceration was identified as a barrier to connection, 83.30% noted that the client was experiencing withdrawal.

#### *Adverse PRS experience*

Adverse PRS experience was referenced in 34.78% of all transcripts, and the fifth most common barriers to connection, comprising 9.30% of barrier themes. This theme was used to describe the perceived emotional response of PRSs to their experiences within the jails, including feelings of disappointment, frustration, helplessness, and discomfort. The most frequently cited code was helpless, which came up in 7 PRS interviews (30.40%). This indicated the PRS' feelings of being unable to help the client for various reasons; for example, systematic restrictions, client motivation, or resource unavailability. One PRS said, "I do get a little discouraged when I'm not able to go into the pod without an escort. It's just like I feel defeated. At this point, and so like a lot of times when I get that defeated mentality like it just. It just doesn't work well for me," (Transcript 14). In another PRS, the PRS said, "there's only one me and my phone will ring nonstop from jail," (Transcript 18).

#### *Disconnection*

Disconnection was referenced in 43.48% of all transcripts and made up 8.53% of barriers to connection themes. This theme referred to situations which resulted in the PRS no longer being able to communicate with a client. We assigned 4 codes to the Disconnection theme: no phone number, reincarceration, leaving area or not local, and lost to follow-up. The most referenced code for disconnection was reincarceration, which came up in 6 PRS interviews (26.10%). This code was utilized for situations, for example, where PRSs described that a client was reincarcerated in a different region or the client's reincarceration prevented the PRS from navigating the client to resources.

### Facilitators of Connection

#### *Peer communication skills*

The theme of peer communication skills was identified in 100% of all transcripts, and was the strongest facilitator of connection, making up 61.76% of facilitator themes. A graph of facilitators of connection can be found in Fig. 5. We attributed 5 codes to this theme: asking questions, building rapport, business cards, communication, and sharing personal stories. Within this theme, sharing personal story, communication, and building rapport were referenced the most. Sharing personal stories came up as how PRSs established a connection with a client in 16 interviews (69.60%). Communication was referenced a similar number of times, 15 interviews (65.20%). Finally, building rapport with a client was referenced in 14 interviews (60.90%). These codes were often used in conjunction with one another, notably 8 of the 18 transcripts referencing any of these 3 codes (44.40%), referenced all 3 codes. One PRS described this saying, "After I got done telling them about charges I got, my history, and pushing my family and friends away and the things I did in my past as far as in drug addiction. I asked him, 'some of these things, are they somewhat like anything you've experienced in your past?' and that's when he opened up and told me," (Transcript 5).

#### *Connection to services*

Connection to services was referenced in 56.52% of all transcripts, the second most common theme within facilitators to connection, comprising 22.55% of facilitator themes. We identified 2 codes within the theme: resource navigation and referrals (to community). These

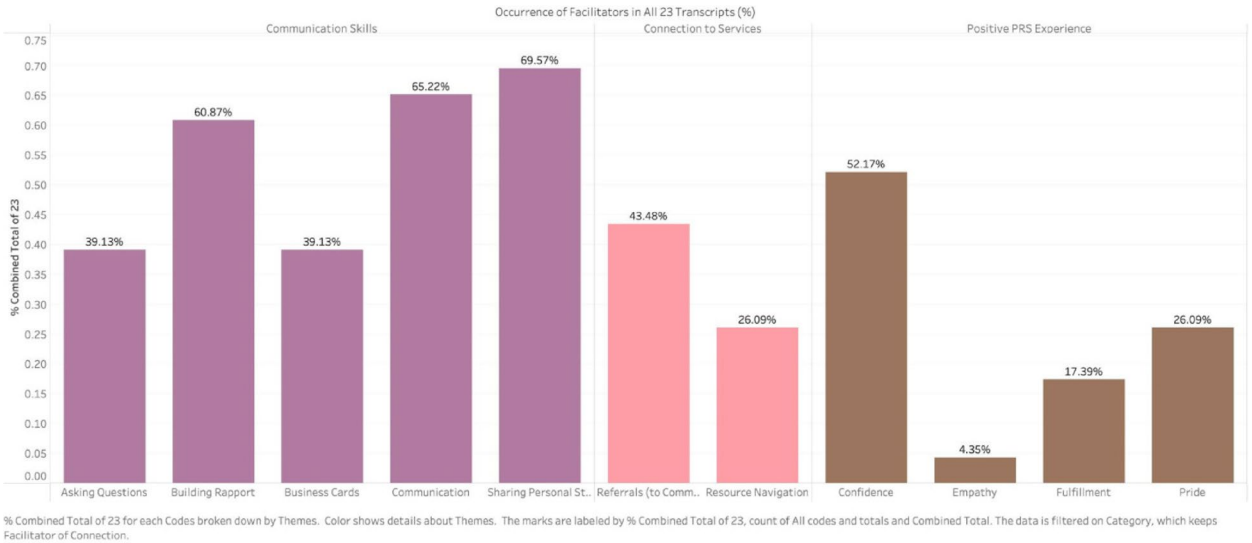


**Fig. 5** Facilitator Prevalence in All Twenty-Three Transcripts

codes were used to identify areas where PRS' leveraged their training and community recovery networks to address clients' immediate concerns. Resource navigation describes when PRSs assist their client in using the services available in their community while referrals to community describes simple referrals made by the PRS for their client to other organizations like local MOUD providers, recovery houses, or treatment centers. In the transcripts, referrals to community came up in 10 interviews (43.50%) and resource navigation was referenced in 6 interviews (26.10%). One PRS described an interaction with their client after having referred them to a recovery program saying, "And I signed her up yesterday, and then I'd seen her at a meeting last night and she was just so, so grateful. She was, you know, crying like, thank you. Like she's just so appreciative," (Transcript 18). A PRS also emphasized the importance of resource building to the PRS role, my coworker and I, we work pretty good together. Giving each other new resources. If we get new resources, you know, we share that information with each other. But we're constantly trying to find resources," (Transcript 13).

### *Positive PRS experience*

Positive PRS experience was referenced in 60.87% of all transcripts and made up 15.69% of the facilitators of connection themes. The 4 codes associated with this theme were used to describe the perceived emotional response of PRSs to their experiences working within the jails, including feelings of confidence, empathy, fulfillment, and pride. Confidence was the most referenced emotion, coming up with the PRSs in 12 interviews (52.20%). The next most referenced emotion was pride, which came up in 6 interviews (26.10%). For example, one PRS shared how being a Peer has impacted them, stating, "I'm just feeling like I found my voice to be able to talk to people and just to get maybe a little spark of hope that maybe I can help them and they reach out and I just grab their hand and help them, you know," (Transcript 18).

### Site comparisons

Eight codes were over 40% more prevalent in Site 2 and Site 3 than in Site A graph of the percent difference between Site 2 and Site 3 and Site 1 codes can be found in Fig. 6 Four of which were within our barriers to connection themes: withdrawal, reincarceration, guards or staff, and hard to hear. The remaining 4 were within our facilitators of connection theme: building rapport, referrals (to community), resource navigation, and pride.

Among barriers to connection codes, Withdrawal was most different between the sites, being referenced 56.35% more often in Site 2 and Site 3 compared to Site 1. Next, guards or staff was 48.41% more prevalent in interviews with the Site 2 and Site 3 PRSs. Then, we found that reincarceration was 42.86% more in interviews with the Site 2 and Site 3 PRS's. Finally, hard to hear was referenced 42.06% more in Site 2 and Site 3. A graph comparing the differences between Site 2 and Site 3 and Site 1codes for the themes of jail-specific restrictions, client in Withdrawal, and SDOH insecurities can be found in Fig. 7.


**Fig. 6** Percent Difference Between Site 2 /Site 3 and Site 1 Codes

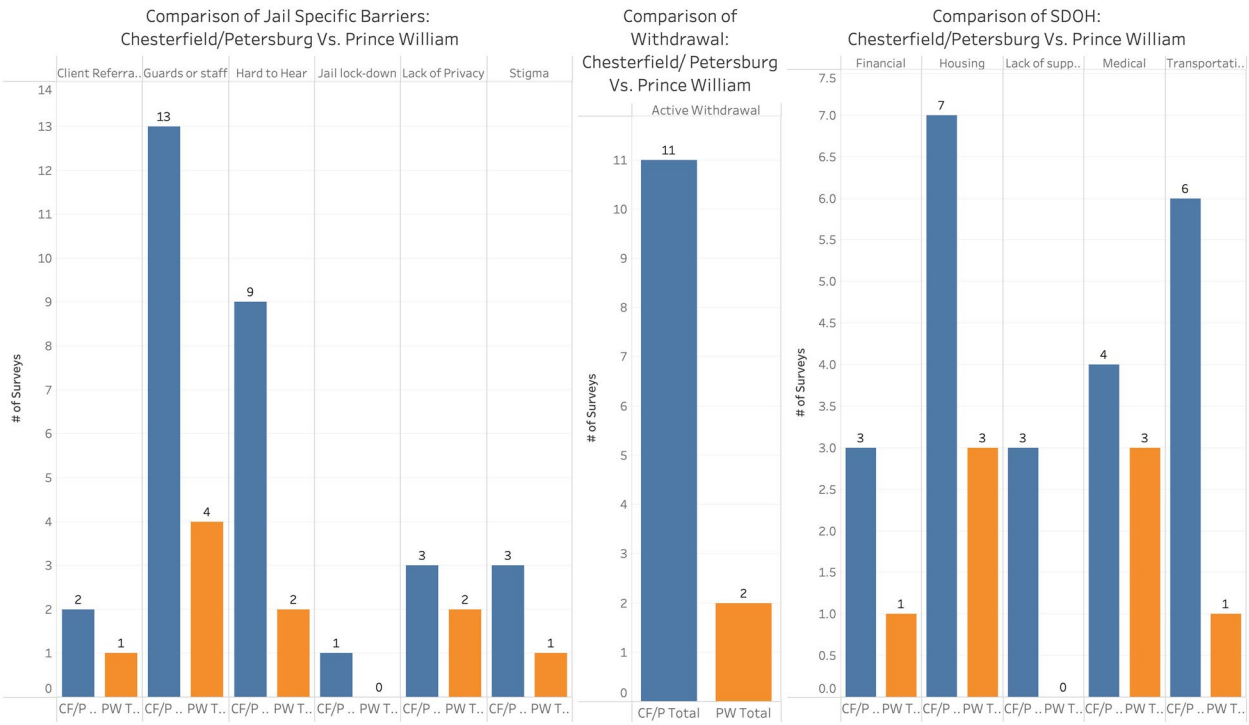


**Fig. 7** Comparison of Barriers Between Site 2/Site 3 and Site 1: Jail Specific, Withdrawal, and SDOH

Within the connections to services theme, we found that referrals to community was the most different between Site 2 and Site 3 and Site 1 being 53.17% more common in Site 2 and Site 3. Next, building rapport was found to be 45.24% more prevalent in Site 2 and Site 3 than in Site 1. Finally, resource navigation and pride were each reference 42.86% frequently in Site 2 and Site 3.

## Discussion

### Key findings

This study explored the experiences of PRSs supporting individuals with OUD within the criminal justice system. Two primary insights emerged from the thematic analysis of PRS interviews. First, barriers to making meaningful connections with clients were organized into six

categories, including jail-specific factors, client withdrawal, and SDOH. Second, the facilitators of connection were grouped into three broad themes, most notably related to peer communication skills, such as building rapport and sharing personal experiences.

A significant finding from the site comparisons was that while all sites faced similar barriers and facilitators, there were notable variations in how these played out. For example, barriers related to withdrawal and interactions with guards or staff were much more pronounced in Sites 2 and 3 than in Site 1. Conversely, facilitators like referrals to community services and peer rapport-building were more frequently mentioned in Sites 2 and 3, suggesting that despite some of the more challenging barriers, these sites also had stronger practices in fostering connections.

These findings highlight the importance of addressing site-specific challenges while leveraging the strengths of PRS communication and connection-building to improve client engagement across various criminal justice settings.

#### Jail-specific barriers as the primary challenge

This study has identified twenty-four barriers that may impede the successful connection between PRS professionals and justice-involved clients with OUD. While it is important to acknowledge the diverse range of barriers identified, it's imperative to emphasize that the most prominent barrier designation was jail specific. While supporting individuals with OUD in the PRS role may be challenging, operating within the criminal justice system clearly introduces additional complexities. These findings underscore the impact of institutional factors on fostering connections between peers and clients, highlighting it as the paramount challenge above all others.

#### Communication is the cornerstone of engagement

The most common facilitator of connection cited across all 23 transcripts was the communication skills of PRS professionals. These codes constituted 61.76% of the total proportion of facilitators to connection, signifying their importance. This finding emphasizes the value of robust peer communication skills and highlights the need to prioritize this aspect in PRS education and training. It also asserts that the most effective tool PRS professionals possess is themselves and their capacity to share personal stories, communicate effectively, build rapport, inquire, or provide resources. Recognizing that their primary strength lies in communication can empower PRS professionals but also accentuates the importance of mitigating barriers that hinder effective communication. Addressing physical obstructions to hearing, lack of privacy, or limited access to clients would be priorities to be addressed.

#### Greater frequency of withdrawal noted in site 2 and site 3 transcripts

When comparing transcripts between locations, Site 2 and Site 3 and Site 1, a notable discrepancy emerged in the occurrence of withdrawal as a code. This observation is intriguing and may be elucidated by the availability of MOUD more present at Site 1. This site maintains a MOUD program in which individuals are identified, referred, and offered MOUD while incarcerated. While individuals incarcerated in Site 2 and Site 3 have access to low-dose MOUD through jail-based health providers, there is currently no equivalent initiative to Site 1. This may have contributed to the increased reports of patients in withdrawal noted in Site 2 and Site 3.

PRSs identifying clients in withdrawal as a barrier to connect may suggest it is crucial to manage client withdrawal to encourage more effective PRS and client interactions. Given that the detention centers the PRSs work with typically have a very short average length of stay, often less than one week, it is imperative that PRSs maximize the effectiveness of this initial, and possible only, meeting.

#### Comparison to literature

Our findings align with existing research on peer support while providing unique insights specific to carceral settings. Eddie et al. highlights the role of PRSs in bridging gaps in traditional treatment models by enhancing access to community resources, which our study supports by identifying peer communication skills and resource navigation as key facilitators of connection (2019).

However, our study extends the literature by identifying jail-specific barriers perceived by PRSs, such as limited client access and communication challenges, which are less explored in previous research. These barriers were the most common obstacles to effective peer-client connections, underscoring the need for structural changes in correctional settings to improve peer programs.

#### Study limitations

While this study yielded valuable insights into the experiences of peer recovery specialists working with individuals with OUD and criminal justice involvement, several limitations should be noted. These limitations include survey structure, phrasing of questions, retrospective study design, and sample size and representativeness.

##### *Survey structure*

The structure of the surveys differed between version 2 and version 3, potentially impacting the accuracy of comparisons between these two iterations. These discrepancies may have introduced inconsistencies in the data analysis and our interpretations.

#### *Phrasing of questions*

Some survey questions may have been leading in nature, possibly influencing respondents' answers and skewing results. For example, some questions were accompanied by suggested topics of consideration such as the question "Describe the first client you saw and any initial impressions you had. (Age, male/female, mental state, any indications of withdrawal?)".

#### *Retrospective study design*

This study relied on retrospective data not originally intended for research purposes, resulting in surveys not tailored to address a predefined research question. Consequently, the scope of the available data for analysis was limited, with a disproportionate emphasis on barriers rather than facilitators of connection.

#### *Sample size and representativeness*

This study examined twenty-three surveys from five different peer recovery specialists over one year and four months. While previous research studies have suggested that saturation in qualitative research can be achieved in as few as nine – seventeen surveys (Hennink, M., & Kaiser, B., 2022), it is important to emphasize that the sample size of peer recovery specialists is relatively small. The experiences captured may not be fully representative of the diversity of PRSs working with justice-involved individuals with OUD across different justice systems and communities. Additionally, with fourteen surveys being from PRSs in Site 2 and Site 3 sites compared to nine from Site 1 PRSs, the data was more representative of Site 2 and Site 3. The small sample size limits the utility of making meaningful comparisons between sites.

## Practice implications

The findings of this study shed light on the barriers and facilitators to connection that our peer recovery specialist partners face when attempting to support individuals with OUD in the criminal justice system. There are several key insights and implications that are important to discuss in the context of PRS barriers and facilitators in this setting.

### Collaboration between justice and recovery partners

The high prevalence of jail-specific barriers, such as limited access to clients and challenging interactions with guards or staff, underscores the critical need for stronger collaboration between criminal justice and recovery services. These jail-specific obstacles represent the most significant challenges faced by PRSs, as the secure and restrictive nature of the jail environment inherently complicates the delivery of peer support services.

This finding presents an important opportunity for meaningful dialogue and collaboration between jail administrators and recovery services providers. By working together, both parties can develop innovative strategies to reduce these barriers. The most frequently identified issues, including difficulties hearing during conversations, lack of privacy, and restricted client access due to lockdowns or staff interventions, require structural and procedural changes. Solutions such as establishing private meeting spaces and improving access to incarcerated individuals can significantly enhance PRS-client interactions.

### The importance of communication in PRS training and education

Effective peer communication skills stand out as a paramount factor in fostering connection between PRSs and clients. This highlights the importance of communication training in PRS education and certification programs. Offering ongoing training and professional development opportunities can further bolster PRSs communication abilities, ensuring they are equipped to effectively support diverse individuals in this setting and navigate the challenges they may experience.

### Building strong community connections

With over half of the transcripts referencing the need for service connections, PRSs are in a unique position to assist with resource navigation. Due to their lived experience, PRSs may be familiar with community resources and understand how to maneuver systems that may otherwise be challenging to navigate. Their familiarity with local services and firsthand knowledge of the barriers faced by individuals with addiction empower them to offer immediate, concrete solutions, such as connecting clients to housing, healthcare, or treatment programs.

PRSs conveyed satisfaction in their ability to address these needs, leveraging their knowledge to streamline access and referrals for clients. However, the effectiveness of this support depends on the availability of robust community resources. It is essential that community services are accessible, so PRSs can successfully navigate clients to the appropriate supports. Strengthening partnerships with local stakeholders will further enhance PRS effectiveness by ensuring that the necessary resources are available and integrated into the recovery process.

### Disparities between sites

There were discrepancies among PRS responses across various jurisdictions, with a notable variation observed in the prevalence of clients experiencing withdrawal. The contrast between PRSs working in facilities equipped

with robust MOUD programs within the jail and those without was notable. This highlights the crucial role of in-jail MOUD services in preparing clients for effective engagement with peer-based recovery interventions, reiterating the value of comprehensive SUD treatment within correctional settings.

### Future research

#### *Exploring correctional staff perspectives*

Given that jail-specific restrictions were the most prevalent barrier theme, understanding the experiences of criminal justice partners working with individuals with SUD is crucial. Qualitative interviews with correctional staff could provide insights into their interactions with clients experiencing SUD or opioid withdrawal. This research could inform stigma reduction initiatives for incarcerated individuals and provide valuable perspectives for PRSs working with this population.

#### *Impact of PRSs on outcomes of individuals with SUD*

Longitudinal studies may be useful in evaluating the long-term outcomes of individuals with OUD and criminal justice involvement who receive peer support services. Research may be helpful to assess outcomes such as substance use patterns, health outcomes, access to SDOH resources, recidivism rates, and successful community reintegration. Additionally, it is imperative that future research can further elaborate on these findings, specifically the impact of barriers and facilitators on recovery outcomes.

## Conclusions

This study provides valuable insights into the challenges and facilitators of peer support for individuals with SUD in the criminal justice system. PRSs identified barriers such as jail-specific restrictions, clients experiencing withdrawal, and SDOH insecurities as significant obstacles to connecting with clients. PRS interviews highlighted that communication skills, such as building rapport and sharing personal stories, were frequently employed to facilitate these connections.

However, it is important to acknowledge that while communication skills were consistently mentioned by PRSs, this study did not measure the outcomes of these interactions or how clients perceived PRS communication. As such, further research is needed to evaluate the effectiveness of these communication strategies in improving client outcomes.

The findings underscore the complex environment in which PRSs operate and the need for stronger collaboration between justice and recovery partners to reduce barriers and optimize peer-based support services. These insights can inform the development of targeted interventions for individuals with SUD, strategies for better supporting and preparing PRS professionals, and policy initiatives aimed at enhancing the effectiveness of peer-based services within the criminal justice system.

## Appendix

### Survey questions: version 2 and version 3

| Survey Version 2 | Survey Version 3 |
|---|---|
| (Initial Interaction) Describe the environment where you first met the client. (Describe whether the room was private or open and who else was in the room.) | (Initial Interaction) Describe a screening you conducted with an individual at your partner site this week, start to finish |
| (Initial Interaction) How close were you to the client? | What are the benefits of screening an individual at this site? |
| (Initial Interaction) Describe how well you could see and hear each other? | (Barriers) What are the challenges of screening an individual at this site? |
| (Initial Interaction) How many clients were you there to see? | (Initial Interaction) Describe an interaction with a consented individual in community this week, start to finish |
| (Initial Interaction) Did you see them together or one-at a-time? | (Engagement) What does this individual need from their Navigator for follow up this week? |
| (Initial Interaction) Describe the first client you saw and any initial impressions you had. (Age, male/female, mental state, any indications of withdrawal.) | What benefits do you see working with consented individuals in the community? |
| (Skills) How did you try to create a connection to the individual and engage with them? | (Barriers) What challenges do you see working with consented individuals in the community? |
| (Engagement) How did that person respond to your attempts to connect and engage initially? (Was the client responsive to what you had to say, or did the client have issues or any barriers that hindered your interaction?) | (Skills) What do you see as your priority as an ECOP peer navigator? |
| (Barriers) What were some barriers you faced when interacting with the client? (Physical: e.g., walls, space between you. Mental: The state of mind of the individual, reception from the individual.) | |
| (Skills) How did you try to overcome these barriers to make a connection with the client? | |
| (Emotional Response) What was your take-away from this interaction? | |
| (Emotional Response) Did anything surprise you or did anything unexpected occur? | |

| Survey Version 2 | Survey Version 3 |
|---|---|
| (Emotional Response) How did you feel about your ability to connect and help this client, compared to your typical client? Please describe this initial visit, give examples or quotes as much as possible to help us understand your story better | |
| (Follow-up) What efforts have you made to keep in contact with this client? | |
| (Follow-up) How have you tried to stay connected? | |
| (Barriers) Are there any barriers in maintaining contact with this individual? What are they and what would you need to overcome them? | |
| (Follow-up) How has the client tried to stay in touch with you? | |
| (Emotional Response) From 1–5, how confident do you feel that this client wants to be contacted again? | |
| (Concerns) What concerns, if any, about this individual's ability to receive substance use treatment? (Did the client mention an issue with housing? Loss of a job?) | |
| (Concerns) What concerns, if any, about this individual's ability to receive other medical treatment? (Did the client mention an issue with housing? Loss of a job?) | |
| (Hand-off) If a peer colleague of yours wanted to meet this client, what tips or suggestions would you give tell them? (This client may be sensitive about a certain topic, or they may become more comfortable if you mention their family) | |
| (Emotional Response) How are you feeling in general about your ability to connect and help individuals with Opioid Use Disorder? | |
| (Skills) What new strategies are you trying this week when engaging new clients? | |
| (Barriers) What new barriers have you faced this week when engaging new clients? | |

**Abbreviations**

| | |
|---|---|
| OUD | Opioid use disorder |
| PRS | Peer recovery specialist |
| SUD | Substance use disorder |
| ECOP | Empowered Communities Opioid Project |
| SDOH | Social determinants of health |
| MOUD | Medication for opioid use disorder |
| SAMHSA | Substance Abuse and Mental Health Services Administration |

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**Authors' contributions**
N.E contributed to the organization, writing, and editing of this manuscript, with a particular focus on the conclusion, study limitations, and discussion sections. N.E also created Figs. 1- 12. M.D contributed to the organization, writing, and editing of this manuscript, with a particular focus on the results section. A.B contributed to the organization, writing, and editing of this manuscript, with a particular focus on the introduction section. R.H contributed to the organization, writing, and editing of this manuscript, with a particular focus on the methods section. R.S provided oversight, expert opinion, and editing throughout the manuscript. N.S also provided oversight, expert opinion, and editing throughout the manuscript. All authors reviewed the manuscript.

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**Data availability**
No datasets were generated or analysed during the current study.

## Declarations

**Ethics approval and consent to participate**
This research was conducted in accordance with the Declaration of Helsinki. All study procedures were approved by the George Mason University Institutional Review Board (Reference Number: 2166202–1). Research Exemption was approved on April 29th, 2024. The data was originally intended for program evaluation purposes and therefore, individual consent was not obtained from participants.

**Competing interests**
The authors declare no competing interests.

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