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Views of barriers and facilitators to continuing methadone treatment upon release from jail among people receiving patient navigation services

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ABSTRACT

Background: Patient navigation has potential for assisting patients who initiate methadone during pretrial detention to enter and remain in treatment following release, but we know little about participants' experiences with this service.

Methods: This study drew a purposive sample of male and female participants ($N = 17$) from participants enrolled in a randomized trial of initiating methadone with vs. without patient navigation while in the Baltimore City Detention Center. The study interviewed participants in the community at 1 and 3 months following release and asked them about their experiences of reentry, methadone treatment continuation, drug use, and interactions with the patient navigator. The study recorded, transcribed, coded using Atlas.ti, and analyzed thematically the interviews.

Results: Participants reported encountering four key challenges in the community: getting to treatment following release, assembling basic supports, managing criminal justice system demands, and staying in treatment. Participants' experiences of the patient navigator's support to address these challenges fell into six thematic groups: showing nonjudgmental caring and persistence, advocating within programs, brokering resources, managing interactions with the criminal justice system, balancing encouragement and self-determination, and offering genuine and familial-type support.

Conclusion: Nearly all participants appreciated the navigator's support and deemed it helpful. The previously reported randomized trial found that participants assigned to initiate methadone treatment with navigation had higher rates of receiving their first "guest" methadone dose in the community but did not have significantly different rates of treatment enrollment or of illicit opioid use compared to those assigned to begin methadone treatment without navigation. Treatment programs should work to improve retention and postrelease outcomes among this population.

1. Introduction

Opioid use disorder among pretrial detainees in the United States is prevalent and a considerable public health concern (Boutwell et al., 2007; Bronson et al., 2017). Opioid use relapse following release from incarceration is common and is associated with overdose death (Binswanger et al., 2013; Merrall et al., 2010). Methadone maintenance treatment is initiated in relatively few detention centers in the United States, although that number is slowly increasing (Vestal, 2020). Detainees, who are often incarcerated for relatively short periods of time (from a few days to several months), face considerable challenges in continuing in treatment following release (Brinkley-Rubinstein et al.,

Abbreviations: OUD, Opioid use disorder; IM, Interim Methadone; IM + PN, Interim Methadone with Patient Navigation; PN, patient navigation/navigator; OTP, opioid treatment program; PO, parole/probation officer; NA, Narcotics Anonymous.

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2019; Magura et al., 2009).

Patient navigation consists of strengths-based case management (Hall et al., 2002) delivered by nonclinical paraprofessionals. Originally developed to increase linkage to cancer screening among marginalized populations (Freeman et al., 1995), it has been adapted to improve linkage to health care for people leaving incarceration, including hepatitis C care (Akiyama et al., 2019), linkage and retention to HIV care, as well as to treatment of substance use disorders (Metsch et al., 2016; Myers et al., 2017; Sorensen et al., 2005). A recent randomized trial found that patient navigation was more successful than standard transitional case management in maintaining HIV viral load suppression following release from incarceration (Cunningham et al., 2018). Similarly, studies have shown patient navigation delivered for 12 months to be superior to standard 90-day case management in terms of linkage to HIV care and treatment retention upon release from jail (Koester et al., 2014; Myers et al., 2017).

Recent studies of patient navigation's effect on opioid use disorder treatment adherence for people leaving jail have been less encouraging. The SOMATICS collaborative (Chandler et al., 2016) included two studies of patient navigation services as support for receiving medications for treating opioid use disorder in this population, including a study of extended-release naltrexone (XR-NTX; Farabee et al., 2020) and our study's parent trial of interim methadone (Schwartz et al., 2020). The XR-NTX study did not find significant differences in opioid use outcomes, past 30-day opioid use disorder, re-arrest or HIV risks between participants receiving patient navigation services and those receiving enhanced standard care at six-month follow-up. Medication adherence was low, with only 36% of patients having attended a navigation session upon release from jail.

Our parent trial (Schwartz et al., 2020) employed patient navigation as part of a recent three-group randomized clinical trial conducted in the Baltimore City Detention Center among pretrial detainees ($N = 225$) who were randomly assigned to initiate interim methadone maintenance treatment with a patient navigator (IM + PN), interim methadone alone (IM), or an enhanced treatment as usual group with medically managed opioid withdrawal (see Schwartz et al., 2016, 2020 for a detailed description of the study arms). Participants assigned to the two IM conditions began methadone maintenance without routine counseling while in detention. These participants had the opportunity to begin guest dosing at one of four opioid treatment programs (OTPs) within three days following release and to be admitted to the program to receive standard methadone maintenance with counseling. Participants assigned to the IM + PN condition were additionally provided with a patient navigator (PN) who met with participants in detention to create an aftercare plan. The patient navigator was a nonclinical paraprofessional with extensive experience as a patient navigator with medically ill patients with substance use problems (Metsch et al., 2016).

This study trained the navigator using a manual adapted from prior work (Metsch et al., 2016; Sorensen et al., 2005), which employed strengths-based case management that integrated motivational techniques. The navigator met with participants once prior to release to generate a plan for continuing in methadone treatment in the community; whenever possible she attended the first "guest dosing" visit with the participant in the community to help ensure the participant received their medication, and was available for three months following release to help the participant remain in treatment and obtain other basic services in the community. The patient-centered patient navigation intervention offered eight or more navigation sessions during the three months following the participant's release. The study generally planned that participants would see the navigator weekly during the first month postrelease and every other week in the subsequent two months, although the frequency of these sessions was meant to vary in response to the participant's needs and preferences. These sessions were focused on addressing barriers to receiving methadone treatment. The PN was also able to assist with community referrals and obtaining IDs and bus passes using a modest fund. The trial found that participants assigned to the navigator were more likely to attend their first postrelease "guest dosing" visit compared to those in the IM group without a navigator (80.3% vs. 57.1%), but the trial found no significant differences between the groups in terms of being enrolled in methadone treatment at 1 month postrelease or over the course of the ensuing 12 months, or any other outcomes (Kelly et al., 2020; Schwartz et al., 2020).

The current study explores participants' views of PN's advantages and limitations, guided by three basic questions: (1) What are the barriers to and supports for continuing detention center–initiated methadone maintenance treatment following release? (2) How did patient navigation address those barriers and increase supports? and (3) What more could have been done, from the participants' perspective, to enhance the PN intervention and improve outcomes?

2. Methods

The current report draws on qualitative interviews conducted as part of a randomized clinical trial ($N = 225$) of methadone treatment initiated in pretrial detention in the Baltimore City Detention Center (Schwartz et al., 2016, 2020).

2.1. Study sample

This study purposively selected a total of 17 participants from among those receiving IM + PN services for qualitative interviews, which we conducted between October 2015 and April 2018. The study selected participants to include a range of ages, races, and genders. The 17 IM + PN participants were: 65% male; 59% African American/Black, 23% White, 18% other race, and 12% Hispanic; a mean age of 36.1 years; a mean of 11 years of education; 47% reporting employment in the past 30 days prior to incarceration. Participants reported a high degree of criminal justice involvement, with a lifetime mean of 55.4 months of incarceration. More than half reported prior treatment for opioid use disorder and 35% reported prior methadone treatment. This study conducted a total of 34 qualitative interviews (17 one-month and 17 three-month interviews). All participants provided informed consent, and the study compensated participants $40 for each interview.

2.2. Procedures and interview guide

Semistructured interviews were generally 30–60 min in length and the study team conducted them at OTPs, the Friends Research Institute's office, or, in a few cases, by phone. The study digitally recorded all interviews. The 1- and 3-month semistructured interview guides included core questions concerning participants' experiences of community reentry, methadone treatment continuation after leaving jail, current drug use, expectations of and interactions with the patient navigator, and barriers and facilitators to treatment entry and retention. Questions branched based on whether the participant was still in methadone treatment in the community, with additional probing questions to elicit more details when necessary.

2.3. Analysis

Interviews were professionally transcribed and two authors independently coded the interviews (EL and LBM); these same authors were also the qualitative interviewers. A third author (CH-D) open-coded (Charmaz, 2006) the data using in vivo coding, in which the participants' own words were used to help generate labels for emergent themes (Strauss, 1987), and created the codebook. The study team then narrowed the inductive codes to exclude sections of interviews unrelated to the research question and analyzed interviews in ATLAS.ti, version 8.4 (ATLAS.ti Scientific Software Development GmbH, 2019). The lead author (SGM) and the study PI (RPS) led team meetings where they discussed broader themes concerning barriers and facilitators to methadone treatment entry and retention, as well as the role that the patient

navigator played in addressing these issues, until all members reached consensus on thematic interpretation (Saldana, 2009).

3. Results

Of the 17 IM + PN participants interviewed (11 men and 6 women), three (17.6%) did not enter methadone treatment in the community within their first three months postrelease, and eight (47.1%) reported not being enrolled in methadone treatment at their one-month interview.

Participants mentioned four key challenges to successful reentry: getting to treatment following release, assembling basic supports, managing criminal justice system demands, and staying in treatment. Within those four reentry challenges, participants reported that their experience of the navigator's work fell into six thematic groups: nonjudgmental caring and persistence, advocating within programs, brokering resources, providing criminal justice advocacy, balancing self-determination with encouragement, and offering genuine and familial support. Results presented next are organized within each of the four key challenges. We comment first on general issues and then on specific aspects of PNs.

3.1. Getting to treatment following release

All participants who initiated interim methadone treatment in the detention center were able to begin guest dosing at one of the four OTPs of their choice within three days of release. Challenges in getting themselves to treatment upon release from jail were common across participants, including the desire to use illicit opioids, the high risk of relapse in the first few days after release, and transportation challenges to attending methadone treatment on a daily basis. Most centrally, they were struggling to avoid returning to old patterns of drug use: "And by me being an addict and using for over twenty years, it's like, right here, even though I want to get clean and it's like that it's just like it was a norm for me to get high and I just went back" [Participant A, 3mos].

Participants also spoke about the requirement of daily methadone treatment after initiation in the community in both positive and negative terms, with some appreciating the structure that daily dosing provided, and others feeling that it was burdensome. Nearly every interviewee referenced transportation as a critical challenge . Without a driver's license or access to a car, the bus was expensive ("four dollars a day that I don't have" [Participant B, 1mo]) and walking all the way or between forms of transit took participants past constant temptation and reminders of their past drug use.

3.1.1. Patient navigation experiences

The participants noted that the patient navigator brought nonjudgmental caring, persistence, and advocacy skills to the challenges they faced in attending treatment in the community. For example:

> …she would make [treatment] appointments for me and I would be the one not to show up. Then, she would make another appointment for me. And, then she made sure I kept the next one because she would pop up the day before and you know, "You ready, don't, if you're not ready, let me know, so we don't go forward" [Participant C, 3mos].

Other participants summarized: "she kept asking did I want treatment" [Participant D, 3mos]; and "persistence, that's just her motto" [Participant E, 3mos]. They reported speaking with the PN frequently: "I talk to her daily and if I don't call her she'll call me" [Participant F, 1mo], and "She contact me every day and ask me am I okay, will I need a ride even though she gets me a bus pass every week. But she know by me having my son that it's been kind of hard and kind of cold outside she will still come get me" [Participant G, 3mos].

To help them enter treatment postrelease, many participants talked about the PN advocating for them at the program. For example:

> [PN] told me what to do she said, "Don't go out and go ripping and running and all that," she said "Come straight to [clinic]". And she gave me the address and then gave me a little map and everything and she was like, "You know where it is?" … bam showed up around eight o'clock and everybody was great, pointed me in the right direction, I met a couple of people, dosed me, got my take-home [Participant H, 1mo].

For others, the intake process was less smooth and the PN helped more actively with the transition: "I got medicated the last day I was locked up so she took me the next day and they didn't have my paperwork done…. So we sat there for like two hours. And she sat there with me until I got medicated and everything, yeah. … it helped because I would have left" [Participant I, 1mo]. Some participants spoke about benefiting from extra advocacy: "[PN] was on the phone with me as soon as I got released and met me that same day at [clinic]…When it was taking them an hour … she was the one that was going up asking questions. 'Why hasn't my guy been seen yet? What's going on? What are you people doing? He just got out of jail, he hasn't been dosed yet.' I mean, she was on top of everything" [Participant E, 1mo]. Another participant commented: "Then she took me up to the [human services nonprofit] and did the same thing up there. 'He needs this, he needs that,' you know?" [Participant B, 1mo].

3.2. Assembling basic supports

Participants reported numerous difficult intersecting life challenges that stood as barriers to linking to and remaining in treatment, including a lack of safe, stable housing; physical and mental health challenges; lack of health insurance; and poverty. The latter was associated with frustration with lack of work, idleness and boredom, and temptation to return to stealing or sex work. One participant talked about how these factors built on each other following a key incident:

> And then for me not having no income, ain't too many people going to help me with housing … And then I did get in a car accident three years ago … the doctor never released me to work again, she took me straight off my job and made me lose everything. I'm separated from my husband. I'm the one that pay all of my bills … So if I can't lift nothing over thirteen pounds I can't go back to work 'cause I take care of old people. And I do, I love working with old people. [Participant J, 1mo].

Another discussed how challenges snowballed over a lifetime:

> …the liver disease, Hep C…you know sometimes I do be in a lot of pain… and I'll think a lot of it came from being homeless too, like… like my bones out there in that snow and you know being chilly and you know stuff like that. So, it's just like a lot of things that I have done to my body before that, growing up too fast at 13, dancing, at 14 dancing and really having sex at like a young age. Not taking care of my body. And a lot of that just caught up at this age you know. [Participant K, 3mos].

3.2.1. Patient navigation experiences

Brokering resources and getting organized were two key themes in participants' reports of the PN's work, including accessing cash assistance, food stamps, state medical assistance, food, clothing, driver's license or other state ID, and health appointments. The PN used tactics like frequent check-ins, appointment setting, reminders, accompaniment, and leaning on a network of her service provider relationships.

One participant summarized, "Every couple days … We talk about programs, treatment, we talk about the stuff I need, like medical assistance, housing, everything that I need. We try to make phone calls or go to the places to accomplish it" [Participant C, 1mo]. Another participant

said, "I've been with [PN] every day taking me to … do things and get things … and go meet the doctor over there on Broadway. I didn't know where he was at, she showed it to me … she'll call and check up on me and make sure I'm okay. And she'll keep up on all my appointments 'cause sometimes I'll forget" [Participant L, 1mo]. Similarly, one participant said about a social service agency: "[PN] actually introduced me to the woman; she just didn't send me there" [Participant I, 1mo].

Participants highlighted the PN's professional network of service providers as a key to success: "I said get my insurance straightened out, anything that I could think of that I asked her about that was within her power of helping me out with, she's like 'I know just the person to talk to'" [Participant H, 1mo]. Multiple participants reported that the PN was given better service by providers than they were as clients: "… since I have been with her, I got a lot of things that I needed accomplished than what I did before ... like appointments. If I do it on my own it would be like a month away … when she'll call and schedule, it would be like the next day or a week later" [Participant C, 3mos].

Participants talked about how the PN helped them to get organized, juggling the work of assembling numerous basic supports after being released. One said:

> The navigation it helps you set it all back up, you know, the A, B, C, 1, 2, 3 thing, you know where you can, you know, have some order in your life. You have something to work on. You know where you're going when you step out of the house. You know what you're going to do. You have some goals right. You have a place to go. Okay, I'm going to go see the doctor. On the way back from the doctor … if I can't get a hold of them on the phone I'll stop by social services. … You're out the door you've got everything done. Bam you get to check that one off. Now on to the next one. Okay, she's written a couple of things down for me and then what it is, she's not overloading me. [Participant H, 3mos].

Another participant talked about the PN's role in motivating him to go after basic supports:

> Just simple stuff like going to Social Services and getting food stamps. I wouldn't … if I didn't have her to set up the appointment I wasn't getting on the phone myself and do it … I would have snorted some dope and just thought about it all day long … procrastinated. [Participant M, 1mo].

3.3. Managing interactions with the criminal justice system

Although some participants were not on probation, most reported ongoing challenges with the requirements of the criminal justice system, including multiple court dates, relationships with probation officers, frequent urine drug and breathalyzer testing, coerced attendance at treatment in programs they did not wish to attend, and dealing with law enforcement officers. At the same time, participants recognized that methadone treatment could sway leniency from a judge. Many participants said methadone treatment meant the relief of "not jeopardizing my freedom" [Participant H, 1mo] by having to steal daily, and some said that probation was "keeping me out of trouble" [Participant M, 1mo].

3.3.1. Patient navigation experiences

The PN advocated within the criminal justice system for many participants, including attending and testifying at court dates, negotiating directly with parole/probation officers, and explaining the law to participants. One participant said the PN would "come to court with me and let them know that I'm on the program" [Participant L, 1mo]. Participants valued her presence at numerous court dates: "every time I went to court she was at a court hearing of mine" [Participant N, 3mos]; as well as at long court appearances: "It took hours for them to call my case and she sat there" [Participant I, 1mo]. In a custody case related to prenatal opioid use, a particpant said:

> …when I went to court for my son, [my PN] spoke to my social worker and let her know what I was doing, how I was doing it. [She] came to court and sat for that much time and didn't get irritated or frustrated or nothing. She was just straight-up forward, like answering questions that I couldn't answer. [Participant O, 1mo].

A participant summarized, saying that "[PN] had came to court with me … It made me feel good. It just let me know that I had the support and that people care about me. … They asked me who I was there with and she got up and … let the judge know that I was doing good" [Participant G, 3mos].

Participants often discussed the demands of the probation system, and one said "[PN] made sure I'd see my PO. She'll call me the day I got to see him to make sure I go there 'cause I won't miss a visit" [Participant D, 1mo]. Another participant talked about the PN as a mediator between him and his PO:

> I called [the PO] up, she immediately started yelling at me and I said, "Stop yelling at me." I said, "Don't talk to me like that. You're my probation officer; you don't speak to me; let's have a different kind of relationship." So, she hung up, so I was like fuck her. And [the PN] was like, "Whoa, let me call her and I'll talk to her." So [PN] called her, I was right downstairs, and she said, "Call your probation officer back." And I called her back and she was so nice and she was like, "Sorry I yelled. You just frustrated me; like I care about you I want you to get help." She said, "Report next Thursday, I need urine" blah-blah-blah.' I said, "okay cool." So that was unbelievable. [Participant B, 1mo].

Explaining the justice system (and how treatment programs interact with it) was also key:

> First off my probation officer says, "We could lock him up at his methadone program." So I was like, "Whoop, no, I'm never going there again.…" I thought I had warrants … I like avoided [PN] like the plague … but she found me and … she said, "Listen, tomorrow go back down to [the clinic], set up your appointments and then it'll all be okay… they can't tell the police that you're there." So, I went up and did it. [Participant B, 3mo].

Participants perceived criminal justice advocacy as a critical piece of the recovery process, with the PN providing court testimony and support, and helping to mediate and translate the demands of the probation system.

3.4. Staying in treatment

Participants described many barriers to sticking with methadone treatment, including challenges with the rigors of daily attendance; clinic barriers; stigma ("People look at you like you're less than they are" [Participant E, 1mo]); dosing issues; the lure of drug use ("End of the week you say 'I deserve a treat'" [Participant H, 3mos]); family problems and grief; and Narcotics Anonymous' influence to discontinue methadone treatment ("because I was in NA I didn't want to be substituting one drug for another" [Participant B, 1mo]). They also described many supportive factors for remaining in treatment, including material and emotional support from family ("I owe it to a lot of people to at least keep trying" [Participant F, 3mos]); making friends in recovery; wanting to do better for their children ("The motivation was there because of my son" [Participant J, 1mo]); spiritual community and faith; and maturation ("I'm getting a little older and I need to get my act straightened out" [Participant H, 1mo]).

3.4.1. Patient navigation experiences

To minimize these challenges and to maximize these supports, participants said the PN brought consistent contact, a balance between self-

determination and pushing hard, and genuine and familial emotional support. Consistent contact from the PN was key for those participants who stuck with methadone treatment; they said, for example, "Every day I talk to her … first she asks me how I'm feeling and I tell her" [Participant F, 1mo] and "If I feel like if I'm getting ready to mess up, I'm on the edge and I need somebody to talk to … and she calls to check on me all the time, too" [Participant E, 3mos]. Specifically, the participants talked about the PN's forgiving stance, being nonjudgmental and caring when they messed up: "A lot of times when you're in a program or something like that they don't care if you just stop coming they don't even bother looking for you or whatever, but she had came looking for me and told me that it wasn't too late and that we can still go forward" [Participant C, 1mo]. Another reported: "She tried to find me, she drove around looking for me and tried to find me. Called everybody that she knew that had the number for me, you know" [Participant B, 1mo]. And one participant added: "She was patient with me … sometimes it would take a long time for me to get something done and she would wait" [Participant I, 1mo].

Another theme that participants described of the PN's work was the balance among motivation, encouragement, and pushing on the one hand, and supporting self-determination on the other; though participants' opinions varied greatly on where that balance should lie. First, encouragement to continue with methadone treatment and treatment goals was central to the PN's role, and widely appreciated among participants. For example: "With her I get a lot of stuff done. And, she is like my pusher, my motivation to get me to do it" [Participant C, 3mos]. Another participant said the PN helped her to surmount barriers of stigma, "She encouraged me to come [to treatment] and stuck with me and talked to me and let me know it wasn't a bad thing, don't worry about what nobody say, I'm doing what's best for me and my two children" [Participant O, 1mo]. This participant also described how the PN was active in hard times: "Any time I feel down or feel like I just want to give up she just right there like, 'No you know you got to do this. Have more time to think about it. Anything you need to talk to me about we can talk about it.' Like, she's just there always encouraging me to go forward not to go backwards" [Participant O, 1mo]. Another participants articulated a positive view of the PN's pushing:

> …She can be very aggressive… to make sure that I'm following through with stuff like, "It's cold outside, you know they're giving jackets out, I've done gave you the address, make sure you take your ass down there and get it. …" Sometimes I need that because I'll procrastinate with stuff and … and then, its two degrees outside, "Damn I should have listened." [Participant E, 3mos].

Other participants described not benefitting from or appreciating the PN's motivational style: "She was trying to help me so bad and I just wasn't ready. … She wanted it more than me" [Participant B, 3mos]. Similarly, one participant reflected: "[PN]'s been on my back like a PO" [Participant G, 1mo]. Another reported some back and forth on the issue: "At one point it just felt like, I felt like I …was being pushed to get everything done, but then I realized that it's going to take a while to get everything done that needs to be done … and she just [said] you know, 'One day at a time, we can only complete one thing at a time'" [Participant C, 1mo].

Supporting self-determination formed the other side of the coin, and participants said, "Basically, she asked me what do I want her to do for me. And I thought that was, you don't really get that from a lot of people" [Participant F, 1mo]. Another participant reported: "… Say for instance if I say 'I really don't want to get high no more' and she would say something like, 'Well it's all up to you if you don't want to get high no more'" [Participant G, 3mos]. For those who did not enter treatment upon release from jail, the PN stayed in contact: "I was supposed to have been going, but I just kept turning it down. And then [PN] asked me when I was here Tuesday, she was like, 'Just let me know when you're ready to go get medicated, I can take you up there.' And I said, 'I want to start Friday' and she said, 'Okay'" [Participant P, 1mo]. This same participant said that she found the PN's strategy to be discouraging and ultimately needed more support:

> I would like to … know that somebody has faith in me that helps a lot. … It makes me want to keep going. When you know that somebody is believing in you because you don't want let them down. She said, "It's your life, so I don't know what to say if you don't want the help … it's your decision." She said something like that. Instead of, you know, like trying to talk to me like, "Well you know I know things are hard but don't give up. I've been there. You know, if there's anything I can do let me know. Or we can do it together as a team." She didn't do none of that. [Participant P, 3mos].

Some participants perceived it as a balance, saying: "Not really babysitting but helping me" [Participant H, 1mo]; and "She didn't pressure me, but she stayed on top of me and she didn't give me really a chance to get any bad thoughts in my head and walk away from anything, and a lot of times people need that" [Participant E, 1mo].

A third theme was the PN's genuine emotional support as participants faced the challenge of staying in treatment. Participants reflected that "She be real" [Participant L, 3mos]; that "She's sincere about what she do" [Participant D, 1mo], and that "You can feel the realness, you can feel the genuine" [Participant L, 3mos]. Another felt the PN was a good example for her:

> It felt good because she didn't treat me like a client; she treated me like a friend. And when you meet women that are being successful and even though we all struggle, you want that and that made me want it, yeah … it also helps me to see that living normal is beautiful, having a job, being able to help somebody else. Yeah I learned a lot from her in that short time. [Participant I, 3mos].

In contrast, one participant who did not feel that the PN served them well explained that "I don't take her sincere" [Participant P, 1mo].

Nonjudgment was key for many participants working with the PN to stay in treatment, with one reporting, "She's not stuck up, she don't act like she's better or she's like judging" [Participant O, 1mo], and another saying, "I was able to talk to her. Talk to her without her judging me, or being negative … I don't open up to everybody" [Participant C, 1mo]. Emotional support felt family-like to many of the participants, some of whom had little or no family in their lives. Participants said they felt "like she my big sister" [Participant L, 3mos]; "she kind of like went from a navigator to like a auntie" [Participant E, 1mo]; "I can honestly say she's more along the lines of a friend" [Participant E, 3mos]; and that the PN was "like a mother/son 'cause she treat you like you're family" [Participant D, 3mos].

Participants' relationships with their partners, families of origin, and children were frequently mentioned as both major supports and major barriers to continuing with recovery, and the PN's role extended to helping to negotiate those relationships. One participant reflected:

> "… She's just somebody that I can talk to about all types of different stuff as far as my fiancée I can't, like if I'm having issues and also she's a female. So it's like if I'm having certain issues with my fiancée, before I jump out there like a retard, I can ask her from a woman's point of view how I should go about dealing with certain situations. So, I mean she helps out a lot" [Participant E, 3mos].

Keeping the focus on family and the motivational power of devotion to family was a key tactic of the PN, according to several participants; for example: "She helped me stay strong, she helped me realize that I got a family, family's first, God and the family is first. And most of all I got a little boy that I got to raise, I have to look out for. … And she always keeps my head toward like what's meaningful in life" [Participant L, 3mos].

4. Discussion

Following release from pretrial detention, participants with OUD who initiated methadone treatment during detention reported a number of reentry challenges, including a lack of social supports, criminal justice demands, and challenges of entering and adhering to methadone treatment. Some of these barriers were inherent to OUD and methadone treatment itself, including stigma, craving and relapse, and returning to their old neighborhood. These particular issues have been noted as far back as the early 1960s during reentry from a federal "narcotics farm" in Lexington, and they often led to relapse (Stephens & Cottrell, 1972; Vaillant, 1973). Many of the challenges, however, were directly associated with poverty, including lack of transportation, unstable housing, lack of insurance, and employment. These types of challenges were also found in qualitative interviews with reentering prisoners with HIV infection who were being linked to HIV care through a PN and other means (Fuller et al., 2019).

Overall, the participants appeared to view their PN experiences positively. They reported that the PN worked by providing a range of social supports, including instrumental support (e.g., rides to the treatment program), informational support (e.g., helping participants get organized and motivated, advocating on their behalf with treatment providers and the criminal justice system), and emotional support (e.g., through the personal relationship developed between the navigator and the participant). These approaches were reportedly useful to the participants but were not sufficient in the clinical trial to influence the outcomes beyond linking the participants to their first guest dosing visit.

Myers et al. (2017) found that a 12-month postrelease PN intervention was superior to a three-month-long case management intervention in linking HIV-positive patients to HIV treatment at 1 month and 12 months postrelease from a long prison stay. In contrast to the current study of pretrial detainees, the study by Myers and colleagues was conducted with prisoners who had long exposures to HIV treatment during lengthy prison sentences, PN of longer duration, and a participant population with a less severe and more diverse drug use experience. Our study participants often reported wanting a longer timeframe in which to work with the PN. We cannot say the extent to which participants would have had a different experience and different outcomes would have been obtained had the PN intervention lasted a full 12 months in the current study.

One possible enhancement to PN, which future research could examine, would be to combine contingency management with navigation. In the NIDA Clinical Trial Network's Project Hope study, conducted among hospitalized patients with HIV infection with any opioid, stimulant, or heavy alcohol use, the study randomly assigned 810 participants to PN for six months with versus without contingency management, or to usual care (Metsch et al., 2016). The study found that the group assigned to both PN and contingency management was more likely to be virally suppressed and to receive HIV care at 6-month, but not 12-month, follow-up. Several possible targets exist for reinforcement in a study combining PN and contingency management with reentering detainees with OUD, including attendance at the OTP and negative drug tests. Future studies might consider such an approach, which would likely be welcome to participants with otherwise limited financial resources. An alternative research focus could be to examine PNs as support services that more centrally address both criminal justice system and drug treatment demands. Although such services were entwined in the PN's activities in our study, they were not a core focus of her work.

While the PN directed her skill and attention to participants in the community, she conducted only one session while participants were still incarcerated, despite that many were receiving interim methadone for up to several months prior to release. Given that participants in our qualitative sample often mentioned ambivalence toward their recovery and fluctuations in motivation when in the community, the intervention could perhaps have been enhanced by providing targeted resources during incarceration. Additional PN sessions during incarceration might also have the benefit of building rapport and trust between the PN and participants; this might have then increased participants' willingness to engage in the social support offered in the community when help was most needed.

A clinical trial of PN with hospitalized patients with substance use disorders employed social workers as navigators (Nordeck et al., 2020). Unlike with the current study, the PNs in that study were newly licensed clinical social workers who received extensive clinical supervision. Considering the psychological comorbidities among people with OUD, especially people with criminal justice involvement, perhaps a clinically oriented PN would have yielded different outcomes in our study sample. By the same token, people with lived experiences are increasingly being employed in jail-based interventions. While these peer recovery coaches do not bring the clinical expertise of a social worker or counselor, their shared histories of recovery may be beneficial and improve patients' outcomes.

There are a number of limitations to the current report that limit generalizability. Most notably, the study had only one female PN. She was a highly experienced paraprofessional navigator with extensive knowledge of community resources and strong dedication to working with these participants; however, participants who were less satisfied with the PN and the services she provided often used them less frequently in this patient-centered intervention. We cannot say the extent to which the findings would generalize to a professional social worker or drug counselor, or to a navigator or professional with less dedication and/or less knowledge of the community. We also cannot speak to whether the patients would have preferred a more structured timeline of intervention activities. The relatively small sample size, as well as the focus on participants residing in the Baltimore City area, clearly pose additional limitations on the generalizability of our findings. The relatively low number of female participants in our sample is another limitation, as gender differences in terms of PN experiences did not reach thematic saturation before study recruitment had to cease. Finally, while a team of experienced researchers guided the analyses, ultimately, a single coder completed qualitative coding.

The current study found that following release from pretrial detention, the PN worked to overcome barriers to participants' successful reentry by brokering resources, being persistent, establishing relationships with participants, and providing concrete services. The study participants appeared to have appreciated the services they received. We do not know the extent to which modification to PN through adding contingency management, enhanced attention during incarceration, longer service timeframes, or more clinically or participant-focused interventions delivered by different types of navigators; these may warrant further consideration.

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CRediT authorship contribution statement

Shannon Gwin Mitchell: Conceptualization, Supervision, Project administration, Investigation, Data curation, Validation, Formal analysis, Writing - original draft; Writing - review & editing. **Caroline Harmon-Darrow**: Formal analysis, Writing - original draft; Writing - review & editing. **Elizabeth Lertch**: Investigation, Writing - review & editing. **Laura B. Monico**: Investigation, Writing - review & editing.

Sharon M. Kelly: Project administration, Investigation Writing - original draft; Writing - review & editing. **James** L. **Sorensen:** Writing - review & editing. **Robert Schwartz**: Conceptualization, Funding acquisition, Supervision, Project administration, Writing - original draft; Writing - review & editing.

Declarations of competing interest

Dr. Schwartz has consulted for Verily Life Sciences and will be receiving medication from Indivior and Alkermes at no cost as Principal Investigator of a different NIDA-funded study. Dr. Monico received research funding from Indivior. The other authors report no conflicts.

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