ARTICLE IN PRESS

Journal of Substance Abuse Treatment xxx (xxxx) xxx

ELSEVIER

Contents lists available at ScienceDirect

Journal of Substance Abuse Treatment

journal homepage: www.elsevier.com/locate/jsat



Ensuring access to high-quality substance use disorder treatment for Medicaid enrollees: A qualitative study of diverse stakeholders' perspectives

Jenny Zhen-Duan ^{a,b,*}, Marie Fukuda ^a, Melissa DeJonckheere ^c, Irene Falgas-Bagué ^{a,b}, Steven Miyawaki ^d, Parwana Khazi ^e, Margarita Alegría ^{a,b,f}

ARTICLE INFO

Keywords: Substance use treatment Policy implementation Medicaid Managed care New York

ABSTRACT

Background: Medicaid programs are vital to ensure low-income individuals have access to substance use disorder (SUD) treatment. However, shifts in Medicaid policies may alter coverage and SUD care for this population, who already face difficulties receiving high-quality SUD treatment. Using a policy implementation research approach, we sought to identify barriers and facilitators when transitioning from Medicaid fee-for-service to managed care plan structures and opportunities for improving SUD care in New York State (NYS).

Method: Study staff conducted semistructured, in-depth qualitative interviews (N = 40 total) with diverse stakeholders involved with different aspects of SUD treatment in NYS, including policy leaders (n = 13), clinicians (n = 12), Medicaid managed care plan administrators (n = 5), and patients (n = 10).

Results: Findings from thematic analysis centered on three themes: 1) while transitions to managed care have benefited clinicians, certain policies affect patients' Medicaid enrollment and quality of care; 2) stakeholders perceived individuals with dual diagnoses, older adults, and linguistic minorities to be at higher risk for inadequate care; and 3) current quality metrics may not adequately capture treatment quality.

Conclusion: Policy changes should focus on promoting increased collaboration among stakeholders, expanding Medicaid coverage, and reducing stigma. Resources should be diverted to facilitate psychiatric care for patients with dual diagnoses and to build workforce capacity to adequately meet the needs of older adults and linguistic minorities. Opportunities for NYS Medicaid include adapting performance metrics to capture meaningful patient outcomes and link reimbursements to improvements in patients' quality of life.

1. Introduction

In 2017, 19.7 million individuals in the United States battled a substance use disorder (SUD), amounting to 7.2% of the entire country's population aged 12 and older (Substance Abuse and Mental Health Services Administration, 2018). Low-income communities evidence a disproportionately high prevalence of SUDs (Andrabi et al., 2017; Collins, 2016; Karriker-Jaffe, 2013). Medicaid and Medicaid expansions sponsored by the Affordable Care Act are critical in ensuring access to

SUD treatment for low-income individuals (Humphreys & Frank, 2014). However, the shifting policies, landscape, and structure of Medicaid may affect care for low-income populations, who already face greater barriers to quality and adequate SUD treatment (Olfson et al., 2018). High quality SUD care includes timely assessment of disease severity, wraparound services for substance use, physical health, and provision of long-term supports (Fields & Roman, 2010). Research can point to how best to improve access and deliver high quality SUD treatment.

New York State (NYS) has the second highest prevalence of opioid

E-mail address: jzhen-duan@mgh.harvard.edu (J. Zhen-Duan).

https://doi.org/10.1016/j.jsat.2021.108511

Received 2 November 2020; Received in revised form 1 February 2021; Accepted 26 May 2021 Available online 31 May 2021 0740-5472/© 2021 Elsevier Inc. All rights reserved.

Please cite this article as: Jenny Zhen-Duan, Journal of Substance Abuse Treatment, https://doi.org/10.1016/j.jsat.2021.108511

^a Disparities Research Unit, Department of Medicine, Massachusetts General Hospital, Boston, MA, USA

^b Department of Medicine, Harvard Medical School, Boston, MA, USA

^c Department of Family Medicine, University of Michigan, Ann Arbor, MI, USA

^d Department of Sociology, Bowdoin College, Brunswick, ME, USA

^e Department of Public Health, Santa Clara University, Santa Clara, CA, USA

f Department of Psychiatry, Harvard Medical School, Boston, MA, USA.

^{*} Corresponding author at: Disparities Research Unit, Department of Medicine, Massachusetts General Hospital, 50 Staniford Street, 8th floor, suite 830, Boston, MA 02114, USA.

use or dependency in the United States (National Survey on Drug Use and Health, 2017). The number of overdose deaths among NYS residents tripled between 2010 and 2017, increasing from 5.4 to 16.1 deaths per 100,000 people (New York State Department of Health, 2019). Beginning in 1997, NYS began to transition most of its Medicaid beneficiaries from a traditional fee-for-service system to Medicaid managed care (Centers for Medicare & Medicaid Services, 2019a), to centralize services and lower overall health care expenditures (Berwick & Hackbarth, 2012; Centers for Medicare & Medicaid Services, 2019). Despite this change, coverage for behavioral health services remained limited for more than a decade (Centers for Medicare & Medicaid Services, 2019a). In 2011, NYS launched a Medicaid redesign project that carved out behavioral health services previously excluded from managed care plans (New York State Department of Health, 2011). While this change allowed for more insurance coverage among low-income individuals, the rates of SUD treatment remained the same (Olfson et al., 2018). Implementation of parity laws that allow equal coverage of behavioral and physical health have been posited as primarily Medicaid's responsibility (Geissler & Evans, 2020). However, Medicaid managed care organizations (MCOs) continue to face challenges in the provision of behavioral health coverage and care integration (Tuck & Smith, 2019). Most notably, MCOs report CFR 42 regulations as a primary barrier, since limitations on information sharing hinder interinstitutional care coordination for SUD treatment (Tuck & Smith, 2019). Other documented barriers to accessing quality SUD care for Medicaid enrollees include treatment center norms and providers' biased attitudes (Foney & Shannon Mace, 2019). Thus, managed care plans, policy-makers, and clinicians hold critical roles for increasing access to quality SUD care for Medicaid enrollees.

Existing administrative data are useful in assessing the performance of Medicaid MCOs, but they tend to be incomplete (Pawlson et al., 2007). While administrative data may identify problems, they cannot elaborate on policies and practices that cause these problems or their potential solutions (McGinnis et al., 2014). The goal of policy implementation research is to understand factors that influence the translation of policies (e.g., rules, laws, and regulations) into practice, as many of the greatest health advances have been attributed to successful policy change and implementation (Nilsen et al., 2013). Using a policy implementation research approach (Nilsen et al., 2013), we sought to engage different stakeholders to identify the effects on SUD care when transitioning from Medicaid fee-for-service to managed care, and the outstanding barriers and facilitators to receiving or providing SUD quality care through managed plan structures. We used a qualitative approach to gather the perspectives of different stakeholders to understand barriers and facilitators that influence policy implementation (Head & Alford, 2015).

2. Method

2.1. Participants and recruitment

The Disparities Research Unit at Massachusetts General Hospital in Boston coordinated this research. We designed purposeful sampling to recruit diverse types of "information rich" (Patton, 2002) stakeholders: policy leaders, including state-level employees, leaders within advocacy organizations, or academics focused on SUD research and policy; clinicians or clinic administrators who provided SUD treatment services (herein referred as clinicians); plan administrators working within SUD care in Medicaid MCOs; and patients receiving SUD treatment through Medicaid. Recruitment started with seven policy leaders who had agreed to participate in connection with this research. The study recruited additional participants through snowball sampling techniques, where policy leaders referred us to plan administrators and/or clinicians. Concurrently, we used NYS listings of Medicaid substance use plans and providers to contact additional participants. For patient recruitment, the research team contacted state-listed SUD treatment and harm-reduction

centers in New York City, asking them for assistance in recruiting patients. Participating clinics then recruited and specified dates and times for in-person interviews. Before recruitment, we estimated needing an overall sample of 40–50 total interviews to reach valid conclusions across stakeholder groups (Guest et al., 2006).

2.2. Procedure

We conducted semistructured, in-depth interviews, a qualitative data collection technique that uses an interview guide while allowing flexibility for interviewers to ask additional questions and elicit new topics (DeJonckheere & Vaughn, 2019). The research team developed interview guides using an iterative process and tailored them to ask each diverse stakeholder group about the same domains. Final interview guides focused on (1) general barriers and facilitators to receiving or providing SUD quality care, (2) differences in SUD services received or offered from Medicaid fee-for-service in contrast to managed care, (3) and evaluation of SUD quality of care. PhD researchers trained in conducting qualitative interviews conducted all interviews. The study team interviewed patients in person, while we interviewed other stakeholders via phone. Interviews lasted 30 to 60 min, averaging around 45 min. Study staff obtained verbal consent, or written consent for patients, to participate in the study and be audio-recorded. Study staff conducted all patient interviews in private rooms at the clinics. All participants received a \$100 gift card for their participation, although most policy leaders declined compensation because of payment restrictions associated with their agencies. The Partners Healthcare Institutional Review Board approved the study.

2.3. Analysis

Research staff transcribed the interviews verbatim, and de-identified and imported them into Dedoose, an online application for qualitative data management and analysis (Dedoose, 2020). This study used a thematic analysis framework, consisting of the following stages: familiarization with the data, creating codes, coding transcripts, generating and reviewing themes, and describing and finalizing themes (Braun & Clarke, 2006). As we collected data, the research team met regularly to review and discuss ongoing interviews and become familiar with the data. Next, the team developed an initial code book, and two trained coders (PK & SM), coded transcripts independently, identified coding differences, and met with the larger team to discuss discrepancies and suggest codebook modifications. The team iteratively refined the codebook through this process until the team developed a final codebook. The two coders coded all interviews independently, reviewed discrepancies between themselves until they reached consensus (Corbin & Strauss, 2014), and the first author (JZD) confirmed their codes. We grouped patterns of responses generated from codes into potential themes across stakeholder groups (Braun & Clarke, 2006). Refinement and clarification of themes occurred collaboratively among research team members until we solidified these themes and excerpts.

3. Results

3.1. Sample and study overview

Of the 88 stakeholders invited, 40 agreed to participate, including policy leaders (n=13), clinicians (n=12), plan administrators (n=5), and patients (n=10; see Table 1 for demographic information). Refusals came mostly from plan administrators and clinicians who did not have interest or clearance to participate.

Policy leaders, plan administrators, and clinicians varied in locality (rural, urban). Most clinicians worked in outpatient settings, and 10 reported that their clinics offered medication for addiction treatment. Of clinicians, six worked in community outpatient/inpatient treatment centers, four participants were linked with university hospitals/hospital

Table 1 Participant information for individual interviews (N = 40).

	# of Participants	Male	Female	Mean Age (SD)	Race	Ethnicity
Patients	10	7	3	40.8		4 Latino
				(range 27-65)	3 White; 1 Black; 2 Asian	
Plan administrators	5	5	0	62.0	5 White	
				(range 41-74)		
Clinicians ^a	12	4	6	54.7		1 Latino
				(range 46–58)	6 White; 4 Black; 1 Asian	
Policy leaders ^b	13	4	6	52.7	7 White; 1 Asian	2 Latino
-				(range 34-61)		

^a Two clinicians missing gender.

clinics, one worked in private practice, and one worked within a forensic setting. Four of these clinicians worked for clinics providing methadone treatments, three mentioned provision of naltrexone, Vivitrol, and buprenorphine within their care settings, and one described care based on an abstinence model. About half of patients were mandated to receive treatment.

Based on the qualitative interviews, the research team identified three major themes: 1) while transitions to managed care have benefitted clinicians, certain policies affect patients' Medicaid enrollment and quality of care; 2) individuals with dual diagnoses, older adults, and linguistic minorities were perceived to be at higher risk for poor quality care; and 3) current Medicaid quality metrics may not adequately capture treatment quality. Themes presented here represent common experiences across multiple stakeholder interviews and are accompanied by illustrative quotations. We present additional supporting quotes in Table 2.

3.2. Theme 1: while transitions to managed care have benefitted clinicians, certain policies affect patients' Medicaid enrollment and quality of care

Policy changes in the past decades have allowed for easier access to SUD treatment for Medicaid enrollees, but certain policies continue to hinder quality of SUD care. Three subthemes emerged: (1) Managed care provides accountability and support to providers, (2) certain Medicaid policies exacerbate problems with health care navigation and enrollment, and (3) unintended consequences occur with some policies crafted to improve SUD care.

3.2.1. Managed care provides accountability and support to providers

Participants believed certain aspects of managed care were critical to improving SUD access for Medicaid beneficiaries. One participant stated "...with managed care, there's more oversight, accountability, and ability from the managed care plans to contact a provider or nudge the provider on things." (P14, Plan administrator). Stakeholders described Medicaid as an exceptional resource for people seeking SUD treatment and that managed cared structures have allowed for more opportunities to provide accountability and support, and thus improved quality of care provided: "Medicaid seems to be the gold card here." (P29, Clinician). This experience was particularly salient among patients, who valued access to Medicaid:

Interviewer: "What do you think that we as providers, as society, should do to make sure that people get the services they need?"

P34, Patient: "Give them Medicaid." (Laughs)

Clinicians and plan administrators largely favored the transition from fee-for-service to managed care, particularly because MCOs provided oversight and support to providers, and included MCOs' clinical audits: "Managed care audits are different from [state] audits because they focus more on clinic-issues and it's created a whole other level of accountability and work to be done" (P21, Clinician).

One clinician described the utility and breadth of clinical audits, explaining that MCOs:

call our main headquarters and say 'Hey, you billed us for [name] on [date]' and that note has to be produced, what they look for is the quality care within the note, what specific therapy was used. Did you use MI [motivational interviewing], did you use CBT [cognitive behavioral therapy], reality therapy, what was used, is it documented appropriately, is it a billable note as per the APG [Ambulatory Patient Groups] guidelines. So, it's very, very specific." (P30, Clinician).

Clinicians and plan administrators believed that these audits were important to establish accountability and ensure that clinicians provided quality care. Increased accountability also meant that clinicians were responsible for providing quality of care and producing proper documentation to be reimbursed for services:

If you're not meeting the quality of care that's supposed to be provided, or your documentation is not correlating with the services that were billed, you lose money on that. They're [MCOs] very strict on that." (P30, Clinician).

3.2.2. Certain Medicaid policies exacerbate problems with healthcare navigation and enrollment

All patients in this study acknowledged that they would not have been able to receive care without Medicaid due to costs, particularly in inpatient settings. However, some patients stated they liked the "old Medicaid" better because they could go to any clinic that accepted Medicaid without restrictions. One of the biggest barriers for patients following the transition to MCOs was not understanding the constraints of managed care:

Patients don't really understand managed care. They don't understand why they can't go to Dr. V anymore and they have to go to Dr. S, because Dr. V is not in that HMO [health maintenance organization] ... The patient then changes to [MCO] but doesn't understand that there's a waiting period to go to [MCO], so they have to wait to see the doctor. So, in the meantime they'll go to the emergency room. (P23, Clinician).

All stakeholder groups acknowledged the negative impact of MCOs on patients' preferences for care, including SUD care.

Stakeholders described that certain related policies can hinder enrollment and therefore affect SUD care. For example, patients often relied on public assistance, which can be revoked if patients do not follow through on mandated treatment. One patient described some of the practical barriers outside of Medicaid that can affect SUD care for Medicaid beneficiaries:

If you don't go to the appointments... the person that's giving you the Medicaid will... shut you[r public assistance] down real quick. You don't know why they didn't go to the appointment. You don't [know if they] have received it in the mail. Not only that, but they tell you

^b Three policy leaders missing demographic data.

Table 2 Additional illustrative quotes.

Theme 1: While transitions to managed care have benefitted clinicians, certain
policies affect patients' Medicaid enrollment and quality of care

Sub-theme	Representative quote(s)
Managed care provides accountability and support to providers Certain Medicaid policies exacerbate problems with healthcare navigation and enrollment	"I think there's better care coordination, at least potentially, with the managed care patients versus fee-for-service, which I think is going to be key if you're looking at what needs to be done regarding substance use disorder. I think a lot is haphazard under fee-for-service and I think there's a lot that can be gained with better care coordination." (P19, Plan administrator). "So [with managed care], every client has an individualized treatment plan and we try very hard to make sure that the needs of the individual is met so that we can provide good quality care."(P30, Clinician). " with managed care, some of the restrictions about seeing more than one provider in a day has been lifted. So folks can more conveniently access things at times, or have a psychiatry appointment and another provider appointment, and I think that has, where that can happen, that is helpful, and in the traditional Medicaid system that was always challenging." (P11, Policy leader) "I was already in treatment. So, they [Medicaid] were asking me for proof of address, if I was taking money and proof of the program. So, I came and told [name of clinician] 'Hey, they are asking me for proof of the program,' so she made me the letter. Then I brought the letter to them [Medicaid] and finally I
There are unintended consequences of some policies crafted to improve SUD care	have it [insurance]. [I lost insurance for] about two weeks" (P37, Patient) "one of the issues that I have with how the state has set that up is in order for practitioners to bill for SBIRT (Screening, Brief Intervention and Referral to Treatment), they have to take a 4-h continuing education course about that, which, it's 4 h to do that when in order to prescribe opioids, we have to have a 3-h course. There's something wrong with this" (P19, Plan administrator) "I don't care if someone stays 10 days, 20 days, 30 days, or 40 days, if they need to be there. And if you're working a transition that makes sense. If you are focusing, which is what the state is doing with the regulation, on time, you're not focusing on quality of care. You can't do both." (P20, Plan administrator) "[When selecting SUD care options for enrollees] You're reduced to these programs that are insurance-driven models that are going to be like 'We'll get you in for two and half minutes and then we'll throw you out and we'll put you into an IOP [intensive outpatient program] and we'll see you for six times, and then we're gonna move you down a level and move you down a level, and then we're going to declare you well in 6 to 12 months, then you have no contact and that's it. Goodbye! If you're left!" (P13, Clinician)

Theme 2: Individuals with dual diagnoses, older adults, and linguistic minorities were perceived to be at higher risk for poor quality care

Table 2 (continued)

Theme 2: Individuals with dual diagnoses, older adults, and linguistic minorities were perceived to be at higher risk for poor quality care			
Sub-theme	Representative quo	te(s)	
Sub-theme	Representative quo	te(s)	
Dual diagnoses Older adults	primary care who l struggle to tie then addition to the prir general psychiatry treatment, which the sense of a tradition essentially be refus for say, manageme mental health clini people with active outpatient treatmen addiction treatmen person's already on not gonna stop doi: outpatient program person still doesn't "say for instance, a two days earlier, the computer that it days, what happen they don't return the more take home ur disciplinary meetin sometimes they have depending on the re will have to docum person. You know, as a guideline, so thook at, revise in the hard on the popula difficulties." (P18, "that aging popudischarge them. It (laughs) and we juafford it, for those for someone who's tell them you can't Medicaid]. So those	lation is absolutely being affected. We don't ake a financial loss, I'll tell you that right now st do a sliding fee scale for those who can who can't, we're just carrying them. It's unfair had treatment for 30 years to all of a sudden receive services here [when aged out of e are the main barriers, is the patient needing	
Linguistic minorities	education and then our aging population not getting the services they need as a result of not having Medicaid." (P23, Clinician) "it's not always easy to find the facility you need. I've got a fairly large population of Orthodox Jews. They only speak Yiddish. I have Yiddish [speaking] counselors but I don't always have enough and I can't always get them in." (P20, Plan administrator)		
Theme 3: Current quality	Medicaid quality met	rics may not adequately capture treatment	
Sub-theme		Representative quote(s)	
Utility of quality metrics and assessments		"I think that Medicaid data itself, the records that you have now, I think would not allow any kind of analysis about patient experience. There would just be a	

Theme 3: Current Medicaid quality metrics may not adequately capture treatment quality				
Sub-theme	Representative quote(s)			
Utility of quality metrics and assessments Quality measures lack patients' voices	"I think that Medicaid data itself, the records that you have now, I think would not allow any kind of analysis about patient experience. There would just be a lot of assumptions of – it looked like this patient or this person was continuing with care, and then all of a sudden they stopped. We don't know what that means, right? Does it mean they were disenrolled, or does it mean they moved, you know, it's really hard to know what that means" (P6, Policy leader) "DOH [Department of Health] knows what they do, and OMH [Office of Mental Health] knows what they do, but no-one is looking at the patient, they're looking at the system. And we don't know how a patient who has a disease that is affected by all these elements can navigate all these systems." (P1, Policy leader)			

J. Zhen-Duan et al.

Table 2 (continued)

Theme 3: Current Medicaid quality metrics may not adequately capture treatment quality

Sub-theme

Representative quote(s)

Quality of SUD care should include measures for individuals' daily and social functioning "as a social worker, that's just something that is innately within me as far as understanding how culture, how a socioeconomic background, how education, how environment, how all these things affect an individual and how we can't put, it's not a one, as they say, cookie-cut treatment. You know, like one way does not work for everyone." (P17, Clinician)

"I think if we could measure and capture the length of a person's recovery further out, you know, how they are doing a year from now, and if we could even measure their quality of recovery, and I think that gets back to some of their other health needs, you know, work, the family connections, their physical health, you know, they made their initial primary care appointment very shortly after we discharged them and a health issue was identified and then they maintained their connection with that primary care physician to address that health issue, which then improves their quality of life. their quality of recovery. Those would be very very helpful measurements, that I think that would then, and family connections- did we do a good job with the family treatment program? Do we need to improve on that based upon the connection that people make with their family, work, do we need to do more with vocational training?" (P25, Clinician)

that [you have to go] face-to-face with the HRA [Human Resources Administration]. How you gonna go to HRA if you don't have Medicaid or Metrocard? (P34, Patient).

Outpatient clinicians helped uninsured individuals to enroll in Medicaid, yet one policy leader who also performs clinical duties explained that "Medicaid has a 45-day waiting period" before benefits are in place so providers may offer treatment but are not guaranteed reimbursement:

While they may be in our treatment program, we're not getting reimbursed, and if they leave treatment early, we don't get reimbursed at all, and they're not connected. Because they left treatment so they lose their benefits. So that's a bureaucratic function—that's really what it is, it's a processing and a bureaucratic function." (P25, Policy leader).

Participants also reported that Medicaid enrollees experienced lapses in coverage due to income fluctuations that impacted their eligibility and SUD care:

People fall in and out of enrollment... I think [it] speaks to a very vulnerable population whose care is going to be compromised because, if their income changes modestly, then they might not be eligible for several months. Lapses in being actually enrolled in Medicaid might in and of itself be a marker of poor quality of care." (P6, Policy leader).

Stakeholders across groups described how policies can leave people without insurance coverage or treatment, hindering quality of SUD care. Describing patients who lose SUD coverage in the transition from Medicaid to Medicare, one clinician states: "they're afraid to go to emergency rooms because they know they're going to get a bill. So what

are they doing? They're avoiding medical care at all costs" (P23, Clinician). However, most clinicians described working around coverage regulations by providing services on a sliding scale, reserving funding for the uninsured ("a little pot of gold," P30, Clinician), or providing free services to ensure SUD treatment was continuously offered. While policy leaders explained that NYS reimburses treatment for uninsured individuals, front-line providers in this study did not seem aware of this coverage or could not access it.

3.2.3. Some policies crafted to improve SUD care have unintended consequences

One NYS regulation that was often mentioned among plan administrators and clinicians was *utilization management*, a process whereby plan administrators assess the appropriateness of the care provided (e.g., prior authorizations). NYS prohibits plans from performing utilization management or denying coverage for the first 14 days of inpatient treatment; this policy elicited mixed reactions among stakeholders. For example, one plan administrator believed that prohibiting plans from utilization management was detrimental as plan administrators could not help members to choose the best course of treatment:

Because we see people who get admitted to facilities over and over. We reach out to the facility and say 'We want to help you manage the transition because this guy's flunking transition, time after time after time.' And the facilities say to you 'Hey, the law says I don't have to talk to you for 14 days.' So what you get is a managed care expert who has a network and has the ability to really help with transitions of care, engaging with a provider who says 'I don't need to talk to you, I'll do it myself' but they don't do it, and we're not allowed to touch them... If you create wedges between managed care and the provider community, the person who gets ripped apart and falls in the hole that's created is the member. (P20, Plan administrator).

However, clinicians and policy leaders viewed the prohibition of utilization management as necessary to protect patients' rights to acute treatment. Some clinicians perceived difficulties getting MCOs to reimburse inpatient stays, which created serious disruptions to clinical care:

Utilization management says "this guy keeps going to rehab or to inpatient, something's wrong," so we already determined that he needs a higher level of care, and [plans say] "he can only stay for 10 days," and we're like, "Noooooo! He needs to be at least through the 28th to get him out of the environment, away from the places, people, and things that are causing these problems and then he can start to heal." So that's a big thing because of not enough time being okayed for these managed cares. (P29, Clinician).

The study did not specifically ask participants about utilization management and patients did not speak to the implementation and effectiveness of this policy. However, many talked about the impact that "treatment leverage" policies had on their lives. Treatment leverages included mandated treatment to avoid incarceration or regain custody of their children, the latter being particularly salient among female patients. Some patients, clinicians, and plan administrators perceived these leverages as punitive rather than focused on their healing process. Here some patients describe their experiences with mandated treatment and ways that it influenced their perception of quality of SUD care:

[Treatment centers would say] "You're doing this, you're doing that, you're not complying" and then they'd go back to the court and say this and this and that, and then the ACS worker will say "Oh yes, she's not complying and she doesn't want her kids." No, that's not it. You're putting me in a place that I'm not comfortable with, that I don't feel like I'm getting what I need. But they don't care about that, they just want you to go to the program and complete what you've got to do. (P31, Patient).

I came on my own this time around, and it works. When you're mandated, it seems like you're doing it for something, you know, you want to stay clean because you're going to get in trouble or go back to jail, lose your kids, lose your apartment, lose whatever the mandation was about. I'm doing this on my own now, and I feel good about it. (P34, Patient)

Thus, while some patients found mandated treatment helpful, most believed that treatment leverages did not help them to stay engaged in treatment. Many programs have strict requirements for daily check-ins as a condition of receiving medication, with consequences for missing visits including inability to see their families. Patients described that these leverages exacerbated the stigma, shame, and punitive nature of SUD treatment, hindered their ability to stay engaged, and therefore reduced the perceived quality of SUD care.

3.3. Theme 2: stakeholder perceived individuals with dual diagnoses, older adults, and linguistic minorities to be at higher risk for inadequate care

Participants described that the transition to managed care improved access to SUD treatment in general and that most patients could readily access most SUD treatments if they wanted. However, policies transitioning to managed care practices failed to address disparities in care for some groups, which included individuals with (1) dual diagnoses, (2) older adults, and (3) linguistic minorities.

3.3.1. Dual diagnoses

Clinicians and policy leaders often described that individuals with dual diagnoses of SUD and severe psychiatric illness were likely to receive inadequate care despite policy transitions aimed at improving access and quality of care. Some stakeholders stated that the disparity resulted from the lack of centers equipped to adequately address dual diagnoses, which had not changed much despite multiple policies enacted to improve SUD care:

We need [to do] more to address the patients with severe mental health ... they come here [to the SUD outpatient clinic, and] we end up sending them back to the shelter that they came from ... but after we've tried all the places that we know [that treat dual diagnoses] and people saying 'no, no no no,' we end up sending [them] back. (P16, Clinician).

Policy leaders and clinicians explained that patients with dual diagnoses, in particular, have poorer treatment quality because "only 10%" of psychiatrists accept Medicaid in NYS" and because of the burden placed on patients to attain psychiatric care:

One thing that I think has been a long-standing difficulty for all types of patients, is accessing psychiatry in an efficient, low barrier way that doesn't involve huge commitments. (P22, Clinician).

Lack of psychiatrists and shortages of prescribers to provide medication for opioid use disorder treatment was also problematic for the larger SUD community in general:

While it is very easy to get into a traditional medication-assisted treatment program where you can be prescribed methadone, it is not that simple to find a doctor that can induce you on buprenorphine or Suboxone. [Places are] booked 6, 8, 10 weeks out in the future, and if someone wants to come off heroin and get on Suboxone they can't wait 6, 8, or 10 weeks. (P21, Clinician).

3.3.2. Older adults

Certain stakeholders also believed that older adults were more likely to receive inadequate SUD care, unlike those in other age groups. For example, some patients shared observations that older adults were missing "methadone appointments" by going at the wrong times due to cognitive decline and that some had chronic conditions (e.g., chronic pain) that were compounded by withdrawal symptoms. Patients explained that SUD treatment was rarely tailored to older adults and noted their older peers' difficulties to remain in care. One policy leader explained: "I think older adults get short shrift in the treatment community, and we don't have tailored programs that meet their needs and don't necessarily look into or address the issue of physical co-morbidities in that population" (P11, Policy leader).

3.3.3. Linguistic minorities

Participants also described care challenges for linguistic minorities as a result of language barriers. For example, one clinician talked about patients they see more intensively in their outpatient clinic because of language barriers:

[these patients] need a high level of service, which means they are not really meeting the criteria of outpatient, but because of their language barriers there is no residential or inpatient provider available for people who do not speak English. (P24, Clinician).

Despite making accommodations, resulting care could still be insufficient to meet patients' needs. Evidence-based treatment, such as peer advocacy trainings, was sometimes unavailable to linguistic minorities, despite stakeholders' acknowledgement of the importance of peer advocacy in recovery. Per participants, despite the linguistic diversity in NYS, language barriers were particularly salient for those whose primary language was less common (e.g., Arabic, Chinese, French).

3.4. Theme 3: current Medicaid quality metrics may not adequately capture treatment quality

Participants discussed ways that quality care was determined and assessed in SUD treatment following the transition to MCOs. Three subthemes emerged: (1) the utility of quality metrics and assessments; (2) quality measures lack patients' voices; and (3) quality of SUD care should include measures for individuals' daily and social functioning.

3.4.1. Utility of quality metrics and assessments

Participants (policy leaders, administrators, and clinicians) reported the multiple quality metrics and assessments that they utilized. Participants explained that Medicaid in NYS evaluates SUD quality by tracking "service utilization, follow-up after hospitalization, detoxification services" and other claims data. The state tracked claims data but also required licensed providers to report patient outcomes data to track clinicians' performance, whereas clinics often had their own internal quality assessments measures (e.g., patient satisfaction surveys, clinician evaluations). Stakeholders viewed the utility quality metrics differently by the role they had. For instance, policy leaders were interested in initiatives and practices to improve statewide care and explained that indicators were intended to assess quality and to "pinpoint how well the services are utilized, and to some extent, how well are people" (P6, Policy leader). Clinicians had to comply with statemandated requirements by reporting indicators intended to demonstrate they were providing good care. However, clinicians were skeptical that the data reported to the state related to patient progress or outcomes:

You know, outcome measures in substance abuse treatment are very crude, and are not really excellent measures of progress in treatment or the health of the patient even, and counselors know that intuitively and so sometimes they kind of resent it, you're ordering me to do this or that with an eye toward value based payment for the state, and that doesn't really help my patient at all, or me, or even really measure the progress that they made. (P21, Clinician).

Plan administrators approached state quality metrics in ways that

J. Zhen-Duan et al.

ensured that they were achieving high quality ratings and remained competitive as a managed care organization: "[Managed care organizations are] competing on quality ratings, they're competing on network ... but they are trying to basically maximize their overall profitability" (P4, Plan administrator).

However, most stakeholders questioned the validity of claims data metrics because they failed to capture the full story: "are we seeing low rates of utilization because there are no providers or is it because there are providers but for some reason, people are not utilizing [them]?" (P6, Policy leader). Instead, most clinicians and some plan administrators advocated for metrics that were actionable and could be used to improve services.

3.4.2. Quality measures lack patients' voices

Despite some stakeholders' use of state quality metrics to evaluate themselves, one common concern expressed across stakeholder groups was that patients' voices were not included in developing quality metrics. For instance, one policy leader said: "When you look at the data collection system, it's about what we found about the patients, it's never about what the patient wants" (P1, Policy leader). Stakeholders saw the need to incorporate patient voices and experiences as significant for crafting metric evaluations of quality SUD and decision making:

It was really interesting to me one day, sitting in a room with all of these leaders in the community, and the question was 'How come people with Medicaid, high risk people on Medicaid, keep on going to the ER for services they don't need to go to the ER for?' And you have all these people who, none of us have Medicaid, right? None of us are fitting the demographic, and I'm like 'why can't we ask someone who's doing that? (P28, Policy leader).

To bridge the gap in Medicaid state metrics and provide patient-centered care, clinicians in this study attempted to make treatment more accessible for patients, often making internal changes to care based on patients' feedback. Inclusion of patients' experiences in their assessments were intended to help move them away from outcome measures, such as hospitalizations, and toward more process-oriented data to inform immediate changes that clinicians can make within their organizations, such as getting feedback on how to make visits more convenient.

3.4.3. Quality of SUD care should include measures for individuals' daily and social functioning

Policy leaders and clinicians alike wanted to incorporate social needs information and functioning levels as foundational SUD treatment quality measures, in particular, with securing and tracking housing information. One clinician explained:

it's not something that we're accustomed to tracking because again our focus has been the substance use and getting that stabilized, but because of the homelessness issue and residents in shelters or transient living family member living with friends, we've started talking about how we can possibly measure that [housing] given the impact that it has on their substance use. (P23, Clinician).

Clinicians and policy leaders expressed difficulties with knowing whether SUD care was being optimally evaluated when outcome measures failed to capture how patients were functioning: "[We need to track] how they return to the workforce, and can maintain a job, have a good relationship/reunion with a family member, [if] they have more social leisure activities compared with before they came for treatment" (P24, Clinician).

Patients echoed this sentiment. Besides feeling welcomed and safe, patients generally regarded high quality treatment according to how well they functioned in daily activities, such as maintaining a job, resuming activities they enjoyed, and reconnecting with family and friends.

4. Discussion

The current study examined diverse stakeholders' perspectives on factors related to access to quality of SUD care for those insured through NYS Medicaid. The study team conducted semistructured interviews and identified three themes. First, while transitions to managed care have benefitted clinicians, certain policies affect patients' Medicaid enrollment and quality of care. Second, three groups were believed to be at high risk for inadequate treatment, including those with dual diagnoses, older adults, and linguistic minorities. Third, current Medicaid quality metrics may not adequately capture SUD treatment quality.

Medicaid remains critical to ensure that low-income communities receive SUD services (Olfson et al., 2018), as participants described the relatively accessible and adequate services available through outpatient care. Medicaid expansions and transitions to managed care have allowed for more comprehensive and high-quality SUD services through benefits expansions (Grogan et al., 2016). MCOs are well-positioned to better allocate resources to avoid excessive health care expenses and oversee staffing and accountability to ensure high quality SUD care. However, enrollment gaps hinder access to care, interfere with medication adherence, and are more likely to lead to hospitalization (Mojtabai, 2019; Tarazi et al., 2017). Our findings are consistent with existing literature that identifies insurance lapses due to patient income fluctuations as a significant barrier to SUD care (Maclean et al., 2019). Research has proposed extending eligibility 12 months after initial enrollment as a way to avoid insurance lapses, balance health care expenditures, and improve health of beneficiaries (Swartz et al., 2015). However, even though NYS became the first to adopt Medicaid eligibility extensions (Brooks et al., 2015), more research is necessary to understand why Medicaid disenrollment remains a barrier and why front-line providers might not be receiving NYS funds intended to cover uninsured SUD care for those in coverage transition.

Stakeholders had mixed opinions about utility of some SUD treatment policies and regulations crafted to improve SUD care. A critical component of successful policy implementation is examining where diverse stakeholders' needs overlap and diverge to address gaps (Damschroder & Hagedorn, 2011; Greenhalgh et al., 2004). Whereas clinicians and policy-makers believed that prohibiting utilization management ensured emergency treatment access, plan administrators described it hindering successful transitions to outpatient care and patient-centered treatment. Lack of communication and coordination between stakeholders appears evident throughout the care continuum, which remains a barrier to improving SUD treatment and merits prioritization (Kehn et al., 2015).

Treatment that is leveraged or mandated has been posited as an efficient component of treatment for SUD recovery (Wild et al., 2012). However, these leverages are not associated with greater adherence to SUD care and patients can perceive them as coercive and punitive (Redlich et al., 2006). Mandated treatment can be stigmatizing if punishment is embedded in the broader way SUD care is structured, as patients in this study described. Policies and clinical guidelines that encourage the shifting of the philosophy of SUD care toward chronic disease management models (McLellan et al., 2014) and move away from acute episodic treatment should be implemented across managed care plans serving Medicaid enrollees. Changing overarching treatment models should include embedding addiction education and treatment in general medical training (Haack & Adger Jr, 2002), and prioritizing training to reduce provider stigma of patients with SUDs (Livingston et al., 2012). Only by shifting SUD care policies can we address provider shortages, lessen bias, and implement a whole-person approach to achieve high-quality care (Skidmore & Budd, 2017).

Participants in our study perceived SUD care to be inadequate for patients with dual diagnoses, older adults, and linguistic minorities, echoing previous findings (Antai-Otong et al., 2016; Guerrero et al., 2013; Wu & Blazer, 2011). The dearth of treatment centers to address comorbid SUD and severe psychiatric illnesses was presented as the

main barrier for those dually diagnosed. Our findings are consistent with existing literature that identifies the lack of treatment centers for dual diagnoses as a persistent problem in SUD care (Antai-Otong et al., 2016). Therefore, expanding centers and building on personnel capacity to work with dual diagnosis remains crucial, particularly as limited treatment centers in the United States are equipped to adequately treat them (McGovern et al., 2014). Research has shown certified community behavioral health centers to be a promising solution to increase access to SUD care for people with comorbid mental health and substance use issues (Kicker et al., 2018). Treatment expansions into different settings (e.g., integrated in primary care, community behavioral health centers) and through varied modes of service delivery (e.g., telehealth) may also allow for low-barrier psychiatric services (Urada et al., 2014) to benefit patients with dual diagnosis and ease medication access barriers outlined by participants. Recent SAMHSA amendments to the CFR 42 regulations allowing facilities to engage in more information sharing may improve quality of SUD care (U.S. Department of Health & Human Services, 2020) by facilitating better care coordination by MCOs (Tuck & Smith, 2019). However, insufficient availability of personnel to provide pharmacotherapy, regarded as critical for guideline concordant care for people with SUDs, remains a challenge (Kermack et al., 2017).

Stakeholders in this study perceived that SUD treatment was inadequate for older adults and linguistic minorities given the scarcity of tailored treatments and resources for both populations. Older adults with opioid use disorders are more commonly treated with methadone than their younger counterparts, increasing the need for monitoring and, subsequently, the risk for inadequate adherence (Harris et al., 2005; Neighbors et al., 2019). Researchers and practitioners should consider efforts to increase case management programs tailored to older adults and use of buprenorphine among this subgroup. Guidelines for treating patients of culturally diverse and linguistic-minority backgrounds have been outlined in the past (Center for Substance Abuse Treatment, 2006). However, these guidelines are loosely enforced nationally and rarely put into practice (Guerrero et al., 2014; Torrey et al., 2011). For instance, despite the federal implementation of the National Culturally and Linguistically Appropriate Services (CLAS) Standards in 2000 to increase cultural and linguistic competence (Office of Minority Health, 2001), most states still do not meet all standards almost two decades later (Aggarwal et al., 2017). While comprehensive adoption and implementation of CLAS standards may prove challenging (Aggarwal et al., 2017; Barksdale et al., 2014), the lack of payments to managed care plans to attend to specific populations may influence the lack of SUD care for these subgroups. SUD care providers should implement novel strategies to improve SUD care for linguistic minorities, older adults, and those with dual diagnosis.

Stakeholders in our study perceived current quality metrics as not representing SUD treatment quality and also failing to capture the experiences of individuals not interacting with the health care system. Our findings echo previous studies (Dunigan et al., 2014; Laudet, 2011; Morgenstern et al., 2008), suggesting that secure housing and employment are social needs that should be incorporated into these measures. Research should explore functional domains salient in promoting longterm recovery (Laudet, 2011). Currently, no consensus exists on which social outcomes should be assessed in clinical settings (Cantor & Thorpe, 2018) due to a lack of policy standards around utilization of social outcomes data (Freij et al., 2019). In response, NYS has an opportunity to create ways for SUD treatment centers to systematically track and improve patients' social needs and quality of life. For example, based on the participants' perspectives in this study, NYS could incorporate more patient-centered metrics of recovery (Neale et al., 2015; Neale et al., 2016) and require improved quality of life for value-based care (i.e., integration of primary care and SUD care history, including patient's satisfaction scores while optimizing treatment) (Tseng & Hicks, 2016) and reimbursements (New York State Department of Health, 2015).

This study has several limitations. We interviewed stakeholders to understand their experiences with SUD care broadly, rather than focusing on specific substances or treatments, which would have allowed for more targeted responses than we could obtain. Our purposeful sampling recruitment approach resulted in patient participants only from New York City clinics, thus our patients' experiences may not be reflective of patients' experiences in NYS broadly. Stratified sampling techniques could help to more explicitly compare the experiences of stakeholders in diverse settings and evaluate the breadth of these findings. Finally, we had difficulty recruiting plan administrators for this study. Additional research should help us to further understand the differences among stakeholder groups. Despite these limitations, our study provides vital data for improvements on access and quality SUD care and opportunities for meaningful practice and policy changes.

5. Conclusion

Policies implemented in the past decade have facilitated comprehensive SUD services for low-income and vulnerable patients on Medicaid. Policy changes that allow for more collaborations among stakeholders, extend Medicaid coverage, and reduce stigmatizing care are still needed. Resources should be diverted toward facilitating psychiatric care for patients with dual diagnoses, and building capacity to work with older adults and linguistic minorities. Opportunities for NYS include tracking meaningful outcomes for patients (e.g., improvement in quality of life and social needs), and making insurance reimbursement contingent upon improvement in patients' quality of life. Future research could examine stakeholders' perspectives on these proposed solutions, including how to balance the need for quality SUD care with the extensive related costs.

CRediT authorship contribution statement

Jenny Zhen-Duan: Conceptualization, Methodology, Formal analysis, Writing-original draft, Writing- review and editing. Marie Fukuda: Conceptualization, Formal analysis, Investigation, Writing – review & editing, Project administration. Melissa DeJonckheere: Conceptualization, Methodology, Writing – original draft, Writing- review and editing. Irene Falgas-Bagué: Conceptualization, Methodology, Writing-review and editing. Steven Miyawaki: Validation, Investigation, Writing- review and editing. Parwana Khazi: Validation, Investigation, Writing – review & editing. Margarita Alegría: Conceptualization, Methodology, Writing- review and editing, Supervision, Funding acquisition.

Acknowledgement

Research reported in the current manuscript was supported by the National Institute on Drug Abuse (NIDA) under award number R01DA044526. At the time of the study, Dr. Zhen-Duan was a Scholar with the HIV/AIDS, Substance Abuse, and Trauma Training Program (HA-STTP), at the University of California, Los Angeles; supported through an award from NIDA (R25DA035692). The content is solely the responsibility of the authors and does not necessarily represent the official views of NIDA. The funders (NIDA) had no role in design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; or decision to submit the manuscript for publication.

Declaration of competing interest

None.

References

Aggarwal, N. K., Cedeno, K., John, D., & Lewis-Fernandez, R. (2017). Adoption of the national CLAS standards by state mental health agencies: A nationwide policy analysis. *Psychiatric Services*, *68*(8), 856–858.

- Andrabi, N., Khoddam, R., & Leventhal, A. M. (2017). Socioeconomic disparities in adolescent substance use: Role of enjoyable alternative substance-free activities. Social Science & Medicine, 176, 175–182.
- Antai-Otong, D., Theis, K., & Patrick, D. D. (2016). Dual diagnosis: Coexisting substance use disorders and psychiatric disorders. *Nursing Clinics*, 51(2), 237–247. https://doi. org/10.1016/j.cnur.2016.01.007.
- Barksdale, C. L., Kenyon, J., Graves, D. L., & Jacobs, C. G. (2014). Addressing disparities in mental health agencies: Strategies to implement the national clas standards in mental health. *Psychological Services*, 11(4), 369.
- Berwick, D. M., & Hackbarth, A. D. (2012). Eliminating waste in US health care. *JAMA*, 307(14), 1513–1516. https://doi.org/10.1001/jama.2012.362.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101.
- Brooks, T., Touschner, J., Artiga, S., Stephens, J., & Gates, A. (2015). Modern era Medicaid: Findings from a 50-state survey of eligibility, enrollment, renewal, and costsharing policies in Medicaid and CHIP as of January 2015 (The Kaiser Commission on Medicaid and the Uninsured (January 2015), Available at Http://Kff. Org/Health-Reform/Report/Modern-Eramedicaid-Findings-from-a-50-State-Survey-of-Eligibilityenrollment-Renewal-and-Cost-Sharing-Policies-Inmedicaid-and-Chip-asof-January-2015/(Accessed December 2, 2015)).
- Cantor, M. N., & Thorpe, L. (2018). Integrating data on social determinants of health into electronic health records. *Health Affairs (Millwood)*, 37(4), 585–590. https://doi.org/ 10.1377/hlthaff.2017.1252.
- Center for Substance Abuse Treatment. (2006). Treatment Improvement Protocol (TIP) No. 47. Chapter 10. Addressing diverse populations in intensive outpatient treatment. In Substance abuse: Clinical issues in intensive outpatient treatment. Substance Abuse and Mental Health Services Administration. Available from: https://www.ncbi.nlm.nih.gov/books/NBK64095/.
- Centers for Medicare & Medicaid Services. (2019a). Medicaid & CHIP enrollment data highlights.
- Centers for Medicare & Medicaid Services. (2019b). MRT demonstration section 1115 quarterly report. https://www.medicaid.gov/Medicaid-CHIP-Program-Information /By-Topics/Waivers/1115/downloads/ny/medicaid-redesign-team/ny-medicaid-rdsgn-mrt-qtrly-rpt-quarter2.pdf.
- Collins, S. E. (2016). Associations between socioeconomic factors and alcohol outcomes. Alcohol Research: Current Reviews, 38(1), 83.
- Corbin, J., & Strauss, A. (2014). Basics of qualitative research: Techniques and procedures for developing grounded theory. Sage publications.
- Damschroder, L. J., & Hagedorn, H. J. (2011). A guiding framework and approach for implementation research in substance use disorders treatment. Psychology of Addictive Behaviors, 25(2), 194–205. https://doi.org/10.1037/a0022284.
- Dedoose. (2020). Web application for managing, analyzing, and presenting qualitative and mixed method research data. SocioCultural Research Consultants, LLC. www.dedoose.
- DeJonckheere, M., & Vaughn, L. M. (2019). Semistructured interviewing in primary care research: A balance of relationship and rigour. Family Medicine and Community Health. 7(2). Article e000057.
- Dunigan, R., Acevedo, A., Campbell, K., Garnick, D. W., Horgan, C. M., Huber, A., ... Ritter, G. A. (2014). Engagement in outpatient substance abuse treatment and employment outcomes. *The Journal of Behavioral Health Services & Research*, 41(1), 20–36.
- Fields, D., & Roman, P. M. (2010). Total quality management and performance in substance abuse treatment centers. *Health Services Research*, 45(6 Pt 1), 1630–1650. https://doi.org/10.1111/j.1475-6773.2010.01152.x.
- Foney, D., & Shannon Mace, J. D. (2019). Factors that influence access to medicationassisted treatment.
- Freij, M., Dullabh, P., Lewis, S., Smith, S. R., Hovey, L., & Dhopeshwarkar, R. (2019). Incorporating social determinants of health in electronic health records: Qualitative study of current practices among top vendors. *JMIR Medical Informatics*, 7(2), Article e13849
- Geissler, K. H., & Evans, E. A. (2020). Changes in Medicaid acceptance by substance abuse treatment facilities after implementation of federal parity. *Medical Care*, 58(2), 101–107. https://doi.org/10.1097/MLR.000000000001242.
- Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: Systematic review and recommendations. *The Milbank Quarterly*, 82(4), 581–629. https://doi.org/10.1111/j.0887-378X 2004.00325 x
- Grogan, C. M., Andrews, C., Abraham, A., Humphreys, K., Pollack, H. A., Smith, B. T., & Friedmann, P. D. (2016). Survey highlights differences in Medicaid coverage for substance use treatment and opioid use disorder medications. *Health Affairs*, 35(12), 2289–2296. https://doi.org/10.1377/hlthaff.2016.0623.
- Guerrero, E. G., He, A., Kim, A., & Aarons, G. A. (2014). Organizational implementation of evidence-based substance abuse treatment in racial and ethnic minority communities. Administration and Policy in Mental Health, 41(6), 737–749. PubMed htt ps://doi.org/10.1007/s10488-013-0515-3.
- Guerrero, E. G., Kao, D., & Perron, B. E. (2013). Travel distance to outpatient substance use disorder treatment facilities for Spanish-speaking clients. *International Journal of Drug Policy*, 24(1), 38–45.
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82.
- Haack, M. R., & Adger, H., Jr. (2002). Executive summary: Strategic plan for interdisciplinary faculty development: Arming the nation's health professional workforce for a new approach to substance use disorders.
- Harris, A. H., Gospodarevskaya, E., & Ritter, A. J. (2005). A randomised trial of the cost effectiveness of buprenorphine as an alternative to methadone maintenance

- treatment for heroin dependence in a primary care setting. *PharmacoEconomics, 23* (1), 77–91. https://doi.org/10.2165/00019053-200523010-00007.
- Head, B. W., & Alford, J. (2015). Wicked problems: Implications for public policy and management. Administration & Society, 47(6), 711–739.
- Humphreys, K., & Frank, R. G. (2014). The affordable care act will revolutionize care for substance use disorders in the United States. Addiction, 109(12), 1957–1958. https:// doi.org/10.1111/add.12606.
- Karriker-Jaffe, K. J. (2013). Neighborhood socioeconomic status and substance use by US adults. Drug and Alcohol Dependence, 133(1), 212–221.
- Kehn, M., Kleinman, R., Siegwarth, A. W., & Brown, J. (2015). Improving the coordination of services for adults with mental health and substance use disorders: Profiles of four state Medicaid initiatives. Mathematica policy research.
- Kermack, A., Flannery, M., Tofighi, B., McNeely, J., & Lee, J. D. (2017). Buprenorphine prescribing practice trends and attitudes among New York providers. *Journal of Substance Abuse Treatment*, 74, 1–6. https://doi.org/10.1016/j.jsat.2016.10.005.
- Kikkert, M., Goudriaan, A., de Waal, M., Peen, J., & Dekker, J. (2018). Effectiveness of Integrated Dual Diagnosis Treatment (IDDT) in severe mental illness outpatients with a co-occurring substance use disorder. *Journal of Substance Abuse Treatment*, 95, 35–42. https://doi.org/10.1016/j.jsat.2018.09.005.
- Laudet, A. B. (2011). The case for considering quality of life in addiction research and clinical practice. Addiction Science & Clinical Practice, 6(1), 44.
- Livingston, J. D., Milne, T., Fang, M. L., & Amari, E. (2012). The effectiveness of interventions for reducing stigma related to substance use disorders: A systematic review. Addiction, 107(1), 39–50.
- Maclean, J. C., Tello-Trillo, S., & Webber, D. (2019). Losing insurance and behavioral health inpatient care: Evidence from a large-scale Medicaid disenrollment (No. w25936). National Bureau of Economic Research. https://doi.org/10.3386/w25936.
- McGinnis, T., Crawford, M., & Somers, S. A. (2014). A state policy framework for integrating health and social services. *Issue Brief (Commonwealth Fund)*, 14(1), 1–9.
- McGovern, M. P., Lambert-Harris, C., Gotham, H. J., Claus, R. E., & Xie, H. (2014). Dual diagnosis capability in mental health and addiction treatment services: An assessment of programs across multiple state systems. Administration and Policy in Mental Health, 41(2), 205–214. PubMed https://doi.org/10.1007/s10488-012-0449-1.
- McLellan, A. T., Starrels, J. L., Tai, B., Gordon, A. J., Brown, R., Ghitza, U., ... McNeely, J. (2014). Can substance use disorders be managed using the chronic care model? Review and recommendations from a NIDA consensus group. *Public Health Reviews*, 35(2), https://doi.org/10.1007/bf03391707.
- Mojtabai, R. (2019). Insurance loss in the era of the affordable care act: Association with access to health services. *Medical Care*, *57*(8), 567–573. https://doi.org/10.1097/mlr.00000000001150.
- Morgenstern, J., Hogue, A., Dasaro, C., Kuerbis, A., & Dauber, S. (2008). Characteristics of individuals screening positive for substance use in a welfare setting: Implications for welfare and substance-use disorders treatment systems. *Journal of Studies on Alcohol and Drugs*, 69(4), 561–570.
- National Survey on Drug Use and Health. (2017). Special data request.
- Neale, J., Vitoratou, S., Finch, E., Lennon, P., Mitcheson, L., Panebianco, D., ... Marsden, J. (2016). Development and validation of "SURE": A patient reported outcome measure (PROM) for recovery from drug and alcohol dependence. *Drug and Alcohol Dependence*, 165, 159–167. https://doi.org/10.1016/j. drugalcdep.2016.06.006.
- Neale, J., Tompkins, C., Wheeler, C., Finch, E., Marsden, J., Mitcheson, L., ... Strang, J. (2015). "You're all going to hate the word 'recovery' by the end of this": Service users' views of measuring addiction recovery. *Drugs: Education, Prevention and Policy*, 22(1), 26–34.
- Neighbors, C. J., Choi, S., Healy, S., Yerneni, R., Sun, T., & Shapoval, L. (2019). Age related medication for addiction treatment (MAT) use for opioid use disorder among Medicaid-insured patients in New York. Substance Abuse Treatment, Prevention, and Policy, 14(1), 28. https://doi.org/10.1186/s13011-019-0215-4.
- New York State Department of Health. (2011). A plan to transform the empire state's Medicaid program-better care, better health, lower costs.
- New York State Department of Health. (2015). Value based payment reform in New York State: A proposal to align Medicare's and NYS Medicaid's reforms. https://www.health.ny.gov/health_care/medicaid/redesign/dsrip/vbp_alignment_paper_final.htm
- New York State Department of Health. (2019). New York state opioid annual report. New York State Department of Health. https://www.health.ny.gov/statistics/opioid/data/pdf/nys_opioid_annual_report_2019.pdf.
- Nilsen, P., Ståhl, C., Roback, K., & Cairney, P. (2013). Never the twain shall meet?-a comparison of implementation science and policy implementation research. *Implementation Science*, 8(1), 63.
- Office of Minority Health. (2001). National standards for culturally and linguistically appropriate services in health care: Final report. U.S. Department of Health and Human Services. https://minorityhealth.hhs.gov/assets/pdf/checked/finalreport.pdf.
- Olfson, M., Wall, M., Barry, C. L., Mauro, C., & Mojtabai, R. (2018). Impact of Medicaid expansion on coverage and treatment of low-income adults with substance use disorders. *Health Affairs*, *37*(8), 1208–1215.
- Patton, M. Q. (2002). Qualitative interviewing. $3~{\rm pp.~344\text{--}347}$).
- Pawlson, L. G., Scholle, S. H., & Powers, A. (2007). Comparison of administrative-only versus administrative plus chart review data for reporting HEDIS hybrid measures. *American Journal of Managed Care*, 13(10), 553.
- Redlich, A. D., Steadman, H. J., Robbins, P. C., & Swanson, J. W. (2006). Use of the criminal justice system to leverage mental health treatment: Effects on treatment adherence and satisfaction. *Journal of the American Academy of Psychiatry and the Law Online*, 34(3), 292–299.

ARTICLE IN PRESS

J. Zhen-Duan et al.

Journal of Substance Abuse Treatment xxx (xxxx) xxx

- Skidmore, W. C., & Budd, M. A. (2017). Alcohol and substance use disorders in medical rehabilitation. In *Practical psychology in medical rehabilitation* (pp. 253–262). Springer.
- Substance Abuse and Mental Health Services Administration. (2018). Key substance use and mental health indicators in the United States: Results from the 2017 National Survey on Drug Use and Health (HHS publication no. SMA 18–5068, NSDUH Series H-53). Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/.
- Swartz, K., Short, P. F., Graefe, D. R., & Uberoi, N. (2015). Reducing Medicaid churning: Extending eligibility for twelve months or to end of calendar year is most effective. Health Affairs (Project Hope), 34(7), 1180–1187. PubMed https://doi.org/10.1377/hlthaff.2014.1204.
- Tarazi, W. W., Green, T. L., & Sabik, L. M. (2017). Medicaid disenrollment and disparities in access to care: Evidence from Tennessee. *Health Services Research*, 52(3), 1156–1167. PubMed https://doi.org/10.1111/1475-6773.12515.
- Torrey, W. C., Tepper, M., & Greenwold, J. (2011). Implementing integrated services for adults with co-occurring substance use disorders and psychiatric illnesses: A research review. *Journal of Dual Diagnosis*, 7(3), 150–161.

- Tseng, E. K., & Hicks, L. K. (2016). Value based care and patient-centered care: Divergent or complementary? Current Hematologic Malignancy Reports, 11(4), 303–310. https://doi.org/10.1007/s11899-016-0333-2.
- Tuck, K., & Smith, E. (2019). Behavioral health coverage in Medicaid managed care. Institute for Medicaid Innovation. Retrieved from Https://Www. Medicaidinnovation.Org/_images/Content/2019-IMI-Behavioral_Health_in_ Medicaid-Report.Pdf.
- U.S. Department of Health & Human Services. (2020). https://www.hhs.gov/about/news/2020/07/13/fact-sheet-samhsa-42-cfr-part-2-revised-rule.html.
- Urada, D., Teruya, C., Gelberg, L., & Rawson, R. (2014). Integration of substance use disorder services with primary care: Health center surveys and qualitative interviews. Substance Abuse Treatment, Prevention, and Policy, 9(1), 15.
- Wild, T., Wolfe, J., & Hyshka, E. (2012). Chapter 8—Consent and coercion in addiction treatment. In A. Carter, W. Hall, & J. Illes (Eds.), *Addiction neuroethics* (pp. 153–174). Academic Press. https://doi.org/10.1016/B978-0-12-385973-0.00008-9.
- Wu, L.-T., & Blazer, D. G. (2011). Illicit and nonmedical drug use among older adults: A review. Journal of Aging and Health, 23(3), 481–504.