ORIGINAL RESEARCH

Exploring Barriers and Facilitators to Integrating a Harm Reduction Approach to Substance Use in Three Medical Settings

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ABSTRACT

BACKGROUND: Evidence suggests that harm reduction, a public health strategy aimed at reducing the negative consequences of a risky health behavior without requiring elimination of the behavior itself, may be a promising approach for minimizing drug-related harms while engaging individuals with substance use disorders (SUDs) in care. However, philosophical clashes between the medical and harm reduction models may pose barriers to adopting harm reduction approaches within medical settings.

OBJECTIVE: To identify barriers and facilitators to implementing a harm reduction approach toward care within healthcare settings. We conducted semi-structured interviews with providers and staff at three integrated harm reduction and medical care sites in New York.

DESIGN: Qualitative study using in-depth and semi-structured interviews.

PARTICIPANTS: Twenty staff and providers across three integrated harm reduction and medical care sites across New York state.

APPROACH: Interview questions focused on how harm reduction approaches were implemented and demonstrated in practice and barriers and facilitators to implementation, as well as questions based on the five domains of the Consolidated Framework for Implementation Research (CFIR).

KEY RESULTS: We identified three key barriers to the adoption of the harm reduction approach that surrounded resource constraints, provider burnout, and interacting with external providers that do not have a harm reduction orientation. We also identified three facilitators to implementation, which included ongoing training both within and external to the clinic, team-based and interdisciplinary care, and affiliations with a larger healthcare system.

CONCLUSIONS: This study demonstrated that while multiple barriers to implementing harm reduction informed medical care existed, health system leaders can adopt practices to mitigate barriers to adoption, such as value-based reimbursement models and holistic models of care that address the full spectrum of patient needs.

KEY WORDS: harm reduction; medication for opioid use disorder; patient-centered care; primary care; substance use disorders

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INTRODUCTION

The consequences of the national opioid epidemic continues to grow; over 100,000 deaths due to drug overdose were reported in 2021,[1] and estimates from the Substance Abuse and Mental Health Services Administration (SAMHSA) found that approximately 40.3 million individuals had a substance use disorder (SUD) in 2020, a sharp increase from previous years.[2,3] In part, the increase in severity can be attributed to the entrance of fentanyl, a highly synthetic opioid, into the drug supply. For example, it is estimated that fentanyl was present in 65% of drug overdose deaths in 2021.[4] In this climate, engaging individuals in treatment and preventing additional harms is particularly urgent.

Harm reduction, a public health strategy focused on reducing the harms associated with a risky health behavior without requiring the elimination of the behavior itself represents a useful approach to both engage and retain individuals with SUDs in care.[5] In the context of substance use, harm reduction prioritizes the prevention or minimization of drug-related harms such as HIV/AIDS transmission and overdoses, without requiring abstinence or a reduction in drug use,[5] and has historically been conceptualized as a set of activities aimed at reducing harm; this includes syringe access services, supervised injection, drug checking, and naloxone distribution.[6]

However, harm reduction can also be understood as a philosophy of care that emphasizes creating patient-centered service environments that meet patients "where they are at" in terms of their drug use.[7] Previous studies have described key principles for harm reduction–oriented care within healthcare settings,[8] and more recent papers have categorized

the ways in which harm reduction can be translated into an institutional approach toward care. This includes low-threshold clinic policies such as not discharging patients or discontinuing medication for non-compliance or missed appointments, not drug testing patients for punitive purposes,[9,10,11] having a walk-in model for patient appointments,[9] and allowing for same-day buprenorphine prescribing.[10]

Such research comes alongside a new push to integrate harm reduction into healthcare delivery settings. As part of the American Rescue Plan, the Biden administration dedicated an unprecedented US$30 million to support harm reduction service providers, including those in primary and behavioral health organizations.[12] Additionally, in a 2022 consensus report from the National Academy of Medicine, experts called for the integration of harm reduction into broader healthcare settings, noting the importance of accessible treatment and patient-centered approaches to care.[13].

Prior studies have described the difficulty of integrating harm reduction approaches into medical settings. Such difficulty stems from philosophical clashes between the "medical model," which posits that providers have the legitimate medical authority and experience, and the harm reduction model, which places patients as the locus of decision-making,[14] as well as long-standing stigma toward people who use drugs (PWUD) within the healthcare system.[9] However, these studies took place within a single healthcare clinic, rather than across multiple settings, which limits the generalizability of their findings.[15].

To address this gap, our study uses qualitative interviews with staff and providers at three harm reduction–oriented medical sites to describe barriers and facilitators to implementing a harm reduction approach to care within healthcare settings. Given that integrated primary care and substance use treatment has been identified as key to combating the opioid epidemic,[16,17]and that many individuals with SUDs currently receive substance use disorder treatment, including medication for opioid use disorder (MOUD), through primary care,[16,17] it is important to understand how harm reduction can be feasibly implemented within these settings.

METHODS

Study Design, Setting, and Participants

This qualitative study consisting of in-depth, semi-structured interviews with 20 staff and providers across three sites within New York state adhered to the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines.[18] The research team was composed of three female researchers based at a university (J.C., H.H., Z.L.) studying healthcare delivery and health disparities for individuals with SUDs. Two members of the research team have a PhD, (J.C., H.H.) and the third has a BS (Z.L.)

All three sites were selected because of the explicit adoption of harm reduction within their workflow. However, the sites differed in their organizational structure. One site was a free-standing clinic in a non-urban setting, the second was co-located within a hospital system in an urban setting, and the third was co-located in a syringe exchange program, also in an urban setting. Two sites were selected because they were identified by the National Academies of Medicine as exemplary sites for harm reduction integration. The third site was recommended by the other two sites.

There is no standard definition of a harm reduction model; however, the literature suggests that there are commonalities among clinics that have adopted this approach. This includes low threshold policies around buprenorphine prescribing, not discharging patients for non-compliance with treatment or positive drug tests,[9–11] having a walk-in model that does not penalize patients for missed appointments,[9] allowing patient priorities to drive treatment decisions,[8,9] and prioritizing holistic care and trust between patients and providers as key outcomes.[8] All three sites included in our study explicitly adopted these characteristics identified in the literature.

The interview guide consisted of questions focused on how harm reduction approaches were implemented and demonstrated in practice, barriers to implementation, and facilitators to implementation, as well as questions based on the five domains of the Consolidated Framework for Implementation Research (CFIR)0.1[9] The interview guide can be found in Appendix Table 1. Leadership from each site recommended participants to be interviewed, who represented the diversity of roles within primary care settings, including those working directly with patients (primary care providers, psychologists, patient navigators, care coordinators, social workers, community health workers, nurses, nurse managers, registered nurses, and nurse practitioners) and those in administrative roles (medical directors, directors of operations, directors of finance, project directors, and operations coordinators). Descriptive information regarding interviewees by study site can be found in Appendix Table 2. All participants that were recommended to the research team agreed to be interviewed. Participants were given US$50 gift cards for the interviews. All interviews were conducted by two interviewers (J.C., Z.L.) using video or audio calls and were professionally transcribed. Interviews were conducted from March to June 2021, and approval for this study was obtained from the New York University Institutional Review Board.

Conceptual Framework

CFIR is one of the most comprehensive and widely used frameworks for studying barriers and facilitators to implementation.[19,20] CFIR specifies constructs which may influence implementation processes and/or implementation outcomes, and consists of five domains: intervention characteristics, outer setting, inner setting, characteristics of

individuals, and process, totaling 26 constructs. The research team used CFIR in their interview guide and in organizing their findings to ensure complete representation of barriers and facilitators across multiple organizational and implementation levels.

Analysis

The research team took a three-step approach to analyze the interview data. First, two researchers (J.C., Z.L.) used a deductive approach to organize responses according to predetermined codes based on interview questions. Second, they applied conventional content analysis consistent with the qualitative descriptive approach to analyze the responses within each code to develop a preliminary list of barriers and facilitators to implementation within a matrix (J.C., Z.L.). Coding reports from the entire data set were reviewed across regular meetings, and new insights were incorporated into the analysis (J.C., Z.L). As a final step, the main analyst (Z.L.) mapped the overarching categories of barriers and facilitators to the CFIR constructs based on similarity or applicability by reviewing the names and definitions of the CFIR constructs. The other analyst (J.C.) reviewed the resulting categories to ensure that the barriers had been mapped appropriately to CFIR constructs. The main analyst (Z.L.) then outlined the main points for each category within the matrix along with illustrative quotes from interviews for each category.

RESULTS

Interview participants described barriers to and facilitations of harm reduction integration related to constructs in the intervention characteristics, outer setting, inner setting, characteristics of individuals, and process CFIR domains. Table 1 presents the barriers and facilitators with illustrative quotes differentiated by CFIR domain and construct, as well as whether the quotes represented barriers to or facilitators of harm reduction integration. Appendix Table 3 illustrates which clinics discussed each barrier and facilitator. Figure 1 presents barriers to implementation mapped to facilitators by CFIR domain.

Intervention Characteristics

The intervention characteristics domain encompasses the key attributes of the intervention itself that influences its success within the clinic (CFIR, 2022). *Barriers* within this domain included the difficulty posed by having a walk-in model for patient appointments, given the large influx of patients that presented to the clinics each day. In particular, providers and staff were aware that patients had difficulty waiting for appointments and may disengage from the clinic if they were not seen quickly.

Staff and providers at all three sites also discussed intervention characteristics that served as *facilitators*. At one site, interviewees discussed having a comprehensive screening process that occurred upon patient intake, which enabled providers to adapt the delivery of services and resources to target patients in greatest need. Another clinic described handing out snacks, hygiene kits, and other items to help patients wait for appointments, and that patients were permitted to bring their pets and belongings into the clinic as well. Two clinics offered remote consultations, either via telephone or video modalities, to patients who may have trouble accessing services in-person.

Outer Setting

The Outer Setting Domain encompasses factors external to the clinic that affect implementation (CFIR, 2022). *Barriers* at this level for all three sites included the degree to which clinics are networked with external organizations, in particular with regard to referrals and relationships with local medical providers. For example, when referring a patient to an external provider or community social service organization, respondents noted that it is impossible to ensure that these organizations will share a harm reduction orientation, which may isolate patients and break the trust established with the clinic. Additionally, while all three clinics refrained from penalizing patients for missed appointments, external providers do not share this philosophy, and may prevent patients from accessing care following a missed visit.

Providers and staff at all sites also discussed barriers related to external policies and incentives, such as the top-down, directive nature of the "medical model" and the medical education system, which is at odds with the harm reduction model that values the patient voice and frontline staff. Similarly, each clinic discussed that standard reimbursement models and performance metrics, which place an emphasis on patient volume, do not fit with the harm reduction approach, which values time with patients and non-standard metrics. Lastly, each site discussed the challenges due to having patients with a variety of social needs, including poverty, unstable housing, and a lack of phones, which cannot all be met by the clinic but that affect patient care and clinical outcomes.

Sites also discussed *facilitators* to harm reduction implementation related to their networks with community organizations, which included holding quarterly trainings with other local organizations and medical providers to shift ideas about PWUD and promote harm reduction, as well as teaching at medical schools and in residency programs to imbue a harm reduction philosophy into the next generation of providers. Participants also noted the benefit of having grants as a supplemental source of funding to counter the misalignment between the harm reduction model and the traditional fee-for-service payment model. Additionally, to address patient needs and resources, facilitators included

Table 1 Barriers and Facilitators to Implementation of a Harm Reduction Approach by CFIR Domain and Construct with Illustrative Quotes

CFIR domains and constructs	Barriers	Illustrative quotes for barriers	Facilitators	Illustrative quotes for facilitators
I. Intervention characteristics				
Complexity	Concerns about patient volume posed by walk-in model	"The walk-in model is great because it provides flexibility, but at the same time, you can't really control the influx of patients."		
Adaptability			Remote services permitted Handing out things to help patients wait Allowing pets + belongings into the clinic Comprehensive screening process	"If you do the screening at induction, then you start to really know who's going to need the services more and get a baseline." "Patients are able to come and actually have a seat and wait and we have coffee, we have like granola bars for our patients on Hep C treatment. We're able to provide patients with hygiene kits and little goodies for them to just be more engaged."
II. Outer setting				
Cosmopolitanism	Referral networks and relationships with community providers	"If we refer to specialists, it's really hard to control how those departments are going to act around our patients, because they don't have the same training and they are not necessarily harm reduction driven."	Quarterly trainings with other local community organizations Teaching at medical schools and residency programs	"Well, I think one solution is training and education for incoming medical providers so we teach, we do training for first-year med students and we do training for residents." "We do quarterly trainings with other local community organizations that have harm reduction philosophies, or just similar philosophies in terms of health equity."
External policies and incentives	Billable hours and standard metrics do not fit with harm reduction Top-down, directive nature of the medical model	"How do you actually build financial sustainability when you're trying to deliver care that might not be reimbursed in the same way as other services?" "In medical land, it's top-down, its directive. There's an extreme hierarchy, it's totally patriarchal. And here you are, looking to interface it with harm reduction land, which really values, for instance, the user voice, the frontline staff voice."	External grants as a supplemental source of funding to counter the misalignment between the harm reduction model and traditional fee-for-service payment	"We have been so strategic and so creative with the specific grants that we've gotten the specific federal funding lines that we've received. We have thoughtfully put in place these different things, so that we can survive, while also not being restricted to the type of care that we can give"
Patient needs and resources	Patients have a variety of social needs that cannot all be met by the clinic	"Poverty is the biggest challenge, the lack of a social net to catch people. I think that we end up doing a lot of that. And folks often don't have phones, so they're hard to reach."	Hiring staff to help address patients' non-medical needs and facilitate access to care	"Having care coordinators, help schedule, follow up appointments and specialty appointments and arrange transportation really helps facilitate the patients' ability to interact with the medical system."

Table 1 (continued)

CFIR domains and constructs	Barriers	Illustrative quotes for barriers	Facilitators	Illustrative quotes for facilitators
III. Inner setting				
Organizational incentives and rewards	Grant funding means certain activities must be prioritized	"Most of our funding is grant-based, so that's tricky. And so, it just makes it really hard to give participants what they actually need versus what we're grant-funded to do. Not a lot of folks want to be HIV tested all the time and to have PrEP pushed on them all the time. But if that's what you're funded to do, you do it."	Clinic is not oriented toward billable hours	"At my last job, we were breaking down our billable hours constantly and being told we have to fit more people in and what have you, and that's not my experience here at all."
Available resources	Time constraints	"If you start offering this type of care, you become very popular and people actually show up for your appointments, which are crammed in together"	Clinic is embedded within a larger organization	"In terms of the logistics, being part of a larger institution is a big facilitator. They're the ones providing the computer and doing a lot of services. Other syringe service programs that have tried to start medical programs have struggled to find providers and struggled to pay them. There was no practice insurance, so I think it helps from that perspective."
Culture			Welcoming environment with friendly staff and signage	"Another element is just having friendly signage. I'm just thinking off the top of my head of the signs we have up right now in the clinic, in the clinic bathrooms. Things like advertising our larger harm reduction approach as a whole, not necessarily just our clinic services, but also that you can get Vitamin C to break up your crack if you want."
				"Because we serve a population who are so used to being poorly treated by the healthcare system, we want to make sure it doesn't feel too fancy, but at the same time that it feels comfortable and nice to them"
Access to knowledge and information			Ongoing and supportive harm reduction training	"We have mandatory harm reduction training that starts with new employees' orientation. And that's part of everybody's training, regardless of whether or not they're clinical."
Networks and communication			Team-based care Interdisciplinary care	"Every morning we have a morning huddle where we go over the schedule and this is what it looks like. And as a team effort of like, hey, we see that your schedule looks completely crazy, this provider can actually take a couple of people she has open slots for…"

Table 1 (continued)

CFIR domains and constructs	Barriers	Illustrative quotes for barriers	Facilitators	Illustrative quotes for facilitators
Leadership engagement			Strong leadership dedicated to harm reduction	"I think the passion of leadership and the pure determination to provide evidence-based training and practice in harm reduction, I really do feel like it trickles down throughout the entire organization."
Learning climate			Staff open to learning from each other and from patients	"Providers really want to work with these patients and they're very open to learning from them, and learning from their peers"
IV. Characteristics of individuals				
Other personal attributes	Provider/staff burnout Making boundaries and accepting you cannot do everything for everyone	"As a provider, you have to put in a lot of time to even maybe get the person into the clinic to come" "Having to deal with sometimes the inconsistency of it and then maintain your flexibility at times" "Seeing patients who haven't been able to make particular life changes and that are really detrimental to them" "The volume and intensity of the patients are just so high. There's so many people that– there's so many needs that are not met that the volume, it gets really high and the burnout is extreme"	Staff encouraged to take breaks and vacation Staff encouraged to set their own boundaries	"I think we are trying to encourage people. People get kind of funny about it because they're like, we don't want to take our vacation days. Like, 'No, take your vacation days.' We don't mandate it, but we highly encourage" "Encouraging people to set your own boundaries as to what you're comfortable with so that you can sustain in the work."
Knowledge and beliefs about the intervention	Previous medical training can be hard to undo	"Feeling like a gatekeeper around a medication, that's part of formal medical training…your medical training is different and it is bound to creep in." "Changing the mindset of people that have come from other facilities is a challenge."	Provider and staff reflection on their privileges and biases	"You really have to think about your own biases and your own preconceived notions. And especially if you're a provider of privilege…That is key in understanding what our gut reaction or implicit reaction might be, and sometimes I do have dialogues in my head. But fortunately, they don't come out of my mouth."
V. Process				
Engaging	Hiring people able to adopt a harm reduction approach	"There's this constant calibration when new people join the team and new challenges arise of making sure that we're all understanding"	Having a comprehensive screening process for staff	"We have a really good screening process before you're let in here. Because I believe that anybody can learn any skill, anybody can learn how to use our EMR system; anybody can learn how to function in an administrative position and things like that. But what can't be taught is someone's morality and humanity. And I think that we have learned how to do a really good job in the screening and interviewing process to see where someone's belief systems lie."

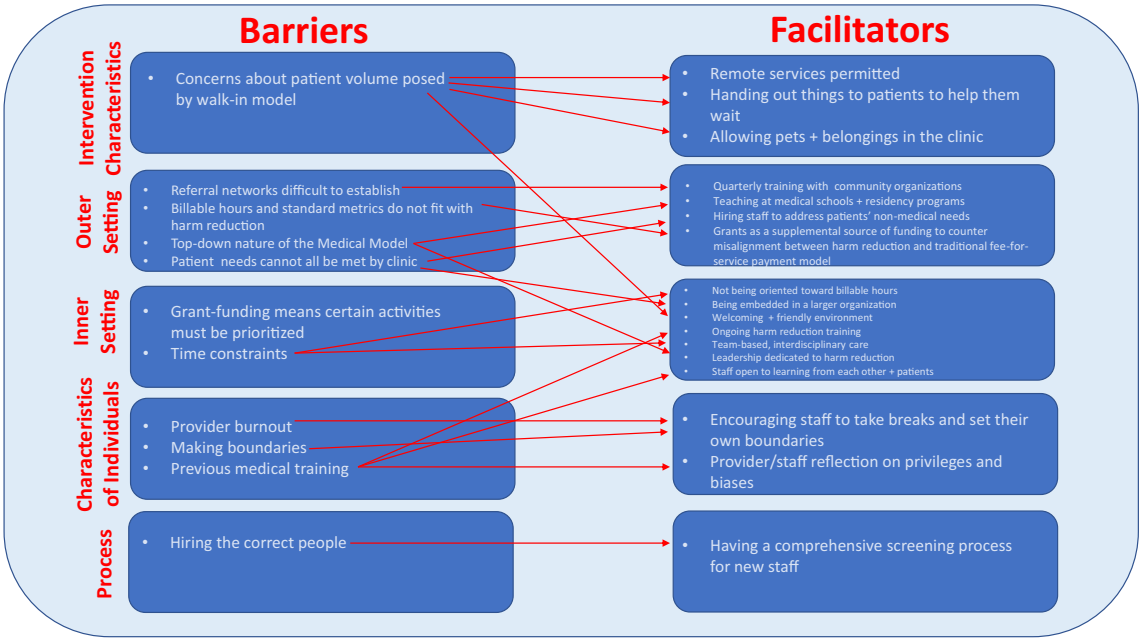

Figure 1 Facilitators to the implementation of a harm reduction approach mapped to barriers to implementation by CFIR domain and construct.

employing care coordinators or similar staff roles to help patients schedule appointments, arrange transportation, and access additional social services.

Inner Setting

The domain of inner setting refers to factors at the clinic level that affect implementation (CFIR, 2022). All three sites described *barriers* related to available resources, in particular when it came to constraints on time. Additionally, staff and providers at one site described challenges related to the reality of having grant funding for their operations, which forced them to prioritize certain activities that were not necessarily identified by patients, such as HIV testing.

The culture of the clinic was a *facilitator* to harm reduction implementation at each site. All three sites described how staff in all roles, from the front-desk receptionist to the providers, created a welcoming, friendly atmosphere for patients, and strove to remember patients' names. One site also noted how signage around the clinic exemplified the harm reduction approach and made clear that drug use was not stigmatized. Two sites that were embedded in larger healthcare organizations described how this was a facilitator in terms of available resources, as the larger organizations provided much of the supplies, technology, and auxiliary support necessary to do their work. Other facilitators included having access to knowledge and information, for example, through ongoing and supportive harm reduction training that began at new staffs' orientation, having team-based and interdisciplinary care, having staff at each site open to learning from each other and from their patients, and leadership engagement, with the leadership at each site strongly dedicated to imbuing a harm reduction approach to care. Additionally, staff at two sites described how organizational incentives and rewards were a facilitator, as staff and providers were not encouraged to practice for financial gain and billable hours.

Characteristics of Individuals

The domain of characteristics of individuals encompasses factors related to the actions, beliefs, and behaviors of individuals within the organization that affect the success of implementation (CFIR, 2022). Staff and providers at all three sites described a number of *barriers* pertaining to the patient-staff/provider relationship, including provider burnout, the amount of effort required from staff just to get someone in the door, making boundaries with patients who have a high number of needs, maintaining flexibility in the face of uncertainty and unscheduled visits, and the difficulty of seeing patients who have been unable to make certain life changes experience detrimental consequences. Additionally, individual attitudes toward the intervention represented an additional barrier, as clinics found difficulty changing the mindset of staff who came from other facilities, and who received previous medical training that was not harm reduction oriented.

Facilitators within this domain include encouraging staff to take breaks and use their vacation days even in the face of a large workload, and supporting staff in setting their boundaries with patients and in the services they are able to provide. Additionally, to enhance the staff's value and familiarity with a harm reduction approach, staff at one clinic described how providers and staff were encouraged

to reflect on their privileges and biases, and to grapple with their immediate reactions to implementing a harm reduction approach to care in certain situations.

Process

The process domain encompasses factors related to the planning, execution, and evaluation of an intervention. All three sites noted *barriers* at this level related to hiring the correct people to work in the clinic, who would be willing and able to adopt the low-threshold orientation necessary to implement harm reduction as an approach to care.

A key *facilitator* to appropriate hiring at all three sites entailed having a comprehensive screening process for hiring new staff, to ensure that people who held stigmatizing beliefs about PWUD would not be working within the clinic. At one clinic, interviews with potential hires were conducted by groups of current staff, who were attentive to the use of stigmatizing language such as addict, as well as patriarchal statements regarding the provider's role and patient care.

DISCUSSION

Previous research has discussed the potential benefits of harm reduction as an approach to patient care. Such benefits include improved clinical outcomes for vulnerable populations,[8] improved rates of medication adherence,[14] reducing transmission of infectious diseases,[21] and retaining patients in care.[8,14] However, few papers have discussed the specific barriers to adopting a harm reduction approach in medical settings, and ways in which organizations and providers have addressed them.

In this paper, we highlighted and mapped the barriers and facilitators to a well-known implementation science framework, and identified the ways in which medical practices can overcome these challenges. Key barriers surround the design of the harm reduction–based model, which in essence allows patients flexibility in both scheduling appointments and deciding on their own treatment goals. These barriers are further amplified in the context of the broader healthcare setting, which traditionally does not support such flexibility or individualized treatment. To address these barriers, the clinics in our study restructured clinic policies to be more welcoming and comfortable to patients and ensured "culture-fit" by only hiring staff and providers willing to adopt a low-threshold, stigma-free approach to care. Additionally, to better situate the harm reduction model within the broader setting of healthcare, the clinics in our study conducted ongoing harm reduction training both within and external to the clinic, to undo previous medical training that was at odds with a harm reduction approach and establish referral networks with external providers in the community.

Other barriers surrounded resource constraints, related to both time, space, and the provider's energy. To address these barriers, the clinics in our study utilized several tools including telemedicine to allow patients access via remote services and team-based care models.

Prior studies found that both telemedicine and team-based care are effective in producing positive outcomes for patients with SUDs, including improving access and patient engagement.[22,23] For example, using telemedicine for the delivery of SUD services can improve patient engagement in care by offering options to patients whose life circumstances make in-person visits challenging.[23] Likewise, team-based care can improve the patient-provider relationship by removing burdens on an individual provider to address all patient needs and give practices flexibility in meeting unscheduled walk-in appointments, as well as enable patients to access a wider range of services, such as self-management tools and linkage to other providers or community resources.[22,24] However, these interventions are resource intensive and challenging to implement.[23,24]

Having a reimbursement model that is value-based can help clinics adopt team-based care and give providers the flexibility needed to implement a low-threshold approach to treatment. Previous research has focused on the incompatibility of fee-for-service (FFS) reimbursement models, the dominant approach to medical care and behavioral healthcare reimbursement, with SUD treatment.[24–26] Given that FFS models prioritize patient volume, key elements of a harm reduction approach, such as holistic care and the importance of the patient-provider relationship, may also be infeasible in this context.[24] Instead, value-based payment systems that incentivize the delivery of nontraditional services, care coordination, and a flexible array of outcomes, such as retention in care, can be a beneficial alternative.[24] Similarly, ensuring that providers have the flexibility to spend time with patients and that staff and providers receive ongoing training in harm reduction and anti-stigma education requires continual support from clinic leadership, including both financial support and a willingness to look beyond standard metrics.

Furthermore, value-based models can help clinics overcome barriers that remained unaddressed in the context of our study. In particular, this model is time and resource intensive, and the clinics in our study found it challenging to meet the full spectrum of their patients' needs, which include severe poverty and homelessness. Similarly, while grant funding provided key financial support for these clinics, providers were forced to direct services toward meeting the grant requirements, such as HIV testing, rather than allowing patients' treatment preferences to drive what services were prioritized. Value-based models that enable providers to develop long-term, personalized treatment plans for SUD patients, and that encourage providers to think beyond the walls of their offices, can offer solutions to clinics facing similar challenges.

Our study has three main limitations. First, as the clinics in our study were selected because of their explicit adoption

of harm reduction, our findings do not reflect the broader range of challenges that providers working in more traditional settings may face in moving to a harm reduction model. Second, while the sites we interviewed had low-threshold clinic policies and did not prioritize abstinence, no validated measure of a harm reduction approach to care exists, making it difficult to standardize barriers and facilitators to implementation in different settings or understand how these factors impact patient outcomes across clinics. Finally, all three clinics included in our study are based in New York state, which has a state policy environment that supports harm reduction interventions.[27] As such, clinics based in states outside New York may confront other regulations and implementation environments that pose additional barriers not included in our study.

Despite these limitations, our study is an important contribution to the literature on integrating a harm reduction approach to care in medical settings, and our findings are particularly salient, given recent policy changes that are shifting the healthcare landscape to be more patient-centered and harm reduction-oriented. For example, in April 2022, the Centers for Medicare and Medicaid Services (CMS) launched the CMS National Quality Strategy, which prioritizes efforts to integrate physical and behavioral health with social needs, to address access-related barriers to care, and to include the patient's voice in care.[28] Similarly, the Biden administration's Overdose Prevention Strategy specifically identified the integration of evidence-based harm reduction practices within healthcare delivery as a priority.[29] Findings from our study support these goals by identifying potential barriers to integrating a harm reduction and patient-centered approach to care for individuals with SUDs within medical settings.

CONCLUSION

This study demonstrated that while multiple barriers to implementing harm reduction–informed medical care existed, health system leaders can adopt practices to mitigate barriers to adoption. Policymakers and other health leaders who wish to encourage uptake of this model within their organizations should focus on implementing the facilitators noted in our interviews, such as interdisciplinary, team-based care and ongoing harm reduction training, as well as adopted solutions such as value-based models of care to counter the barriers posed by fee-for-service reimbursement. Future studies should examine barriers and facilitators to implementation in a wider variety of care settings, including primary care practices that do not explicitly identify themselves as harm reduction clinics and specialty care settings, as well as assess the perspectives of patients. Additionally, future research should focus on developing a standard measurement of harm reduction orientation on a clinic level to ensure that implementation goals are standardized and clear and to assess whether the implementation of a harm reduction approach is associated with improved patient outcomes.

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Declarations

Conflict of Interest *The authors have no conflicts of interest to report.*

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