Children and Youth Services Review 115 (2020) 105094

Contents lists available at ScienceDirect

Children and Youth Services Review

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

Access to healthcare among youth experiencing homelessness: Perspectives from healthcare and social service providers

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ARTICLE INFO

Keywords:
Youth experiencing homelessness
Homeless youth
Young adults
Healthcare access
Healthcare services

ABSTRACT

Access to healthcare services is critical for youth experiencing homelessness (YEH) given their high risk of experiencing adverse physical and mental health outcomes. Previous studies have identified factors that impact YEH's access to healthcare services from the perspective of YEH, but less is known from the perspective of providers. The purpose of this study was to examine providers' experiences and perceptions of the barriers and facilitators that impact YEH's access to healthcare. Semi-structured interviews were conducted with 17 healthcare and social service providers in Houston, Texas. Drawing on constructs from healthcare access frameworks, findings were categorized into barrier-and facilitator-related themes that reflect five dimensions of healthcare access: approachability, acceptability, accommodation, affordability, and adequacy. The most commonly reported barrier was the high-barrier healthcare service delivery system (e.g., numerous documentation requirements, multi-step process) that YEH had to navigate in order to access healthcare services, followed by the limited availability of free and low-cost healthcare services. The most commonly reported facilitator was building interagency relationships that helped streamline the referral process and provided direct organizational contacts that could be called upon when YEH need assistance. This was followed by offering healthcare navigation assistance (e.g., teaching YEH how to identify healthcare services online) and accompanying YEH to appointments, which better ensured YEH's access to care. Collectively, study findings indicate that the complex way in which healthcare services are currently organized and delivered fails to adequately accommodate YEH, who need low-threshold access to youth-centered healthcare services. Gaps in YEH's access to healthcare services can be narrowed using a combination of administrative strategies and research efforts. These include implementing policies, programs, and practices that incorporate trauma-informed principles in YEH-serving organizations; establishing interagency collaborations to better facilitate the service connection process; and developing and evaluating patient navigator programs designed to increase YEH's access to healthcare services.

1. Introduction

It is estimated that over 3 million youth experience homelessness annually in the United States (Morton et al., 2018). Homelessness negatively impacts the mental and physical health of youth (Coates & McKenzie-Mohr, 2010; Edidin, Ganim, Hunter, & Karnik, 2012; Thompson, Bender, Windsor, Cook, & Williams, 2010). Mental health issues among youth experiencing homelessness (YEH) include depression, post-traumatic stress disorder, suicidal ideation, and substance use disorders (Baer, Ginzler, & Peterson, 2003; Merscham, Van Leeuwen, & McGuire, 2009; Unger, Kipke, Simon, Montgomery, & Johnson, 1997). Physical health concerns include lack of a healthy diet, dermatologic disorders, respiratory problems, dental disease, and infectious diseases, such as influenza, sexually transmitted infections, and hepatitis (Beech, Myers, Beech, & Kernick, 2003; Chi & Milgrom, 2008; Edidin et al., 2012; Feldmann & Middleman, 2003; Kulik, Gaetz, Crowe, & Ford-Jones, 2011; Medlow, Klineberg, & Steinbeck, 2014). Given the negative health impact of homelessness, access to healthcare services is

Abbreviations: YEH, youth experiencing homelessness; CEO, chief executive officer; LGBT, lesbian, gay, bisexual, or transgender; MSM, men who have sex with men; FQHC, federally qualified health clinic

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https://doi.org/10.1016/j.childyouth.2020.105094
Received 19 December 2019; Received in revised form 13 May 2020; Accepted 14 May 2020
Available online 16 May 2020
0190-7409/

critical for YEH.

Several studies have examined barriers and facilitators to accessing healthcare services from the perspective of YEH (Black et al., 2018; Christiani, Hudson, Nyamathi, Mutere, & Sweat, 2008; Dawson & Jackson, 2013; Ensign & Bell, 2004; French, Reardon, & Smith, 2003; Hudson et al., 2010), however few have done so from the provider's perspective. Service providers can offer unique insights, as they can shed light on how agency and system-level policy, program, funding, and practice mechanisms hinder or facilitate YEH's access to healthcare. Previous qualitative studies conducted with YEH-serving providers help further our understanding of factors that impact YEH's access to general services. For example, a study that explored providers' experiences working with highly mobile youth found that the service system's capacity limitations and restrictive policies (e.g., shelter stay limits), impacted YEH's mobility, and identified that certain values, including building trust, meeting youth where they are, and accessibility were critical to working with YEH (Aykanian, 2018). Another study that explored the prospects and challenges faced by the homeless youth service sector identified extensive intake processes and appointment-based meetings, staffing and resource shortages as barriers to services, whereas interprofessional relationships and easily accessible services enhanced YEH's access to services (Gharabaghi & Stuart, 2010). A study that explored the barriers and facilitators to service referrals among YEH identified resource and funding shortages, inflexible entry criteria for services and a complex service system as barriers to service referrals, whereas, positive staff attributes and establishing relationships with other service providers were facilitators (Black et al., 2018). A systematic review and qualitative studies conducted with YEH-serving providers have echoed the importance of trust-building and positive staff attributes and also identified versatile services and advocating on behalf of YEH as facilitators (Kidd, Miner, Walker, & Davidson, 2007; Slesnick, Dashora, Letcher, Erdem, & Serovich, 2009; Stewart, Reutter, Letourneau, Makwarimba, & Hungler, 2010).

While findings from previous studies among providers help further our understanding of factors that impact YEH's access to general services, they lack insight on factors that specifically impact YEH's access to healthcare services. The majority of studies were conducted with YEH-serving social service providers (e.g., youth shelter workers, frontline youth workers) (Abramovich, 2016; Aykanian, 2018; Kidd et al., 2007; Stewart et al., 2010), however, previous studies have overlooked the perspective of healthcare providers, such as physicians and nurses, who serve the YEH population. Furthermore, previous studies often lack the perspective of administrative-level providers (e.g., director, program/project manager) who can offer insight from a systems level. This qualitative study addresses this knowledge gap by examining the perspectives of a range of healthcare and social service providers to shed light on the barriers and facilitators that impact YEH's access to healthcare.

1.1. Conceptual framework

Several frameworks have been developed to guide our understanding of the meaning and dimensions of healthcare access. For example, Penchansky and Thomas (1981) defined access as the fit between an individual's healthcare needs and the characteristics of providers and the healthcare service system. In their conceptualization of access, they proposed five closely related dimensions of access: availability, accessibility, accommodation, affordability, and acceptability. Availability is the fit between the amount and type of existing services and the healthcare service needs of individuals. Accessibility refers to the location of healthcare services in relation to the location of individuals that need those services. Accommodation is the fit between how healthcare services are organized to accept patients (e.g., hours of operation, appointment mechanisms) and individuals' ability to accommodate those processes. Affordability is the relationship between the cost of healthcare services and available resources (e.g., insurance, financial assistance) and individual's ability to pay for those services. Acceptability is the fit between the characteristics of healthcare facilities and providers, as well as their attitudes about preferred patient attributes (e.g., individuals with public benefits) and the healthcare service preferences of individuals seeking services (Penchansky & Thomas, 1981).

Building on the work of Penchansky and Thomas and that of others (Aday & Andersen, 1974; Penchansky & Thomas, 1981; Shengelia, Murray, & Adams, 2003), Levesque, Harris, and Russell (2013) conceptualized access as the possibility for individuals to identify healthcare needs, seek healthcare services, reach healthcare resources, obtain healthcare services, and be offered services that appropriately fulfill their healthcare need. Furthermore, Levesque and colleagues operationalized access as five-paired dimensions (characteristics of healthcare service system and abilities of healthcare service users) that represent different stages of the healthcare-seeking process. The dimensions of access that reflect the characteristics of the healthcare service system include: (a) approachability, (b) acceptability, (c) availability and accommodation, (d) affordability, and (e) appropriateness and adequacy. The five corresponding dimensions of access that reflect the abilities that service users must possess to transition through the different stages include: (a) ability to perceive, (b) ability to seek, (c) ability to reach, (d) ability to pay, and (e) ability to engage (Levesque et al., 2013). Similar to Penchansky and Thomas' framework, this framework's conceptualization of access reflects the interplay between characteristics of individuals and characteristics of the healthcare service system. However, Levesque and colleagues' framework adopts a broader scope of access by including a dimension that captures the stage in the healthcare-seeking process when an individual has a desire for care but has yet to begin the actual search for care. Specifically, the framework's dimension of approachability relates to the idea that people with a health need can identify that services exist and can be reached, and that those services can ultimately have an impact on their health. Activities that bring awareness to an organization's services, such as outreach and screenings, can increase an organization's approachability. In addition, Levesque and colleagues' framework includes a dimension of access related to continuing care and suggests that access to healthcare extends beyond an individual's initial contact with the healthcare system and comes into play each time a person tries to access care. Specifically, the adequacy of healthcare services, which relates to the way in which services are provided and their integrated and continuous manner, impacts individuals' health outcomes, service satisfaction, and service choice (Levesque et al., 2013).

1.2. Study purpose

In the current study, we draw on constructs adapted from the healthcare access frameworks proposed by Penchansky and Thomas (1981) and Levesque et al. (2013) to understand healthcare and social service providers' experiences and perceptions of the barriers and facilitators that directly impact YEH's access to healthcare services, as well as indirectly through impacting providers' abilities to connect YEH to healthcare services (Fig. 1). Findings from this study will enable us to make data-driven recommendations on how to improve YEH-serving systems-of-care to increase YEH's access to healthcare services.

2. Methods

This study was part of a larger research initiative, the *Homeless Youth Healthcare Initiative* (HYHI). HYHI is a collaborative project that aims to bring together healthcare and homeless service providers across the greater Houston area, which is the fourth largest U.S. city and home to the largest medical center in the world (Texas Medical Center, 2019). The goal of HYHI is to develop an integrated, comprehensive system of care where YEH can easily access a full range of health and mental

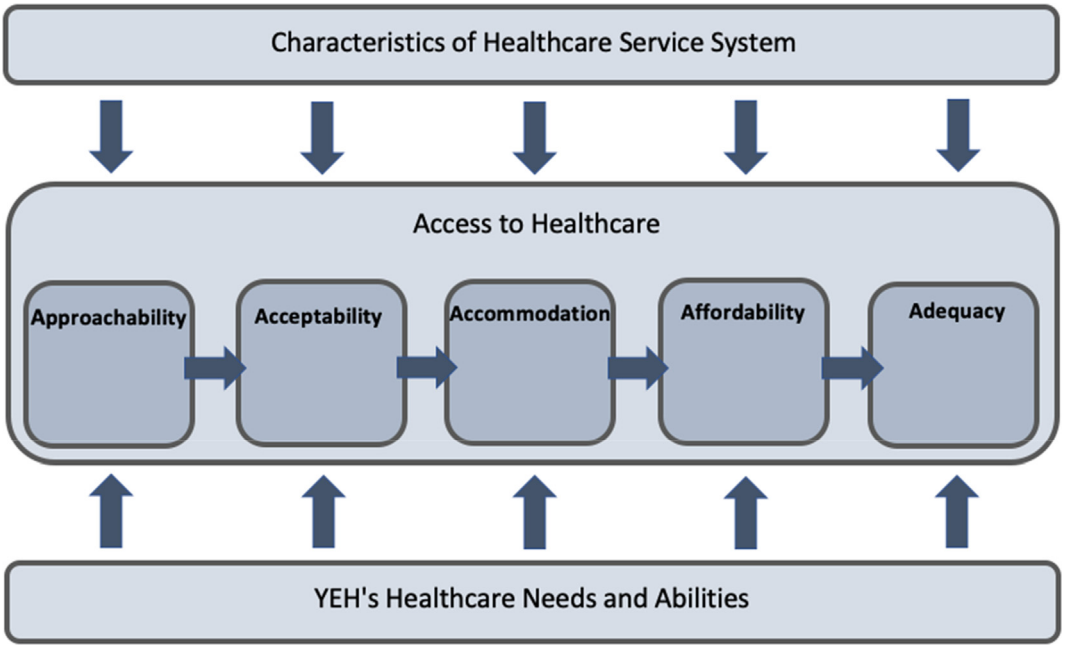

Fig. 1. Proposed framework for healthcare access among youth experiencing homelessness.

health services. An initial objective of HYHI was to conduct a needs assessment of healthcare and homeless services to inform a community-wide strategic plan to identify existing service gaps and barriers to care. HYHI is led by two of the study's co-authors [DSM & SN], who are doctorally trained researchers with over 12 years of combined experience conducting research with YEH. In addition to their research backgrounds, [DSM] is a registered nurse and [SN] is a licensed clinical social worker. Their research efforts have enabled them to develop strong collaborations with a network of community partners focused on serving YEH within the greater Houston community.

2.1. Sample and recruitment

For this study, a purposive sampling method was used to recruit providers from organizations that offer mental and physical healthcare services to YEH and social services agencies that serve YEH. We purposively sampled providers who were knowledgeable about the agency services, as well as barriers and facilitators to YEH's access to healthcare services at both the system-level and the direct patient care level. Thus, providers were eligible to participate if they were an agency administrator or a staff member designated by agency administrators as someone who could speak and respond knowledgeably about the agency services. We generated a list of relevant healthcare providers to reach out to by identifying organizations that either (a) received federal healthcare for the homeless funding, (b) were designated as federally qualified health centers in or near shelters or drop-in centers used by YEH, or (c) served YEH as a target population. We also generated a list of well-known homeless service agencies in the greater Houston area. We called or emailed agency administrators to provide information about the study and to extend an invitation to participate. Only one organization, a public mental health organization, that was invited to participate did not participate. We scheduled an interview time with all providers who expressed an interest in participating.

2.2. Data collection

From November 2017 to February 2018, two PhD-level co-authors [DSM & SN] with extensive research experience in youth homelessness, conducted 17 semi-structured interviews with providers from 10 participating healthcare and social service agencies in the greater Houston area. The interviews lasted approximately 1 hour. Prior to the interview, participants were informed about the purpose of the study and the overall goal of HYHI. Participants provided written informed consent. We conducted all interviews in a private location (e.g., an office or private room) at the provider's affiliated agency, with only the researcher and participant present. Open-ended questions were used to guide each interview (Table 1). All interviews were digitally recorded and professionally transcribed. At the completion of the interview, each provider was given a $25 grocery store gift card that they could keep or donate on their behalf to a YEH-serving agency. This study was approved by the institutional review boards of the universities of the lead investigators.

2.3. Data analysis

We used thematic content analysis to analyze the qualitative data (Bernard, Wutich, & Ryan, 2016). To promote reflexivity, prior to beginning the process of data analysis, the team members independently reflected on their own experiences and identities that might shape their reading of the transcripts. The coding team included the first author, a doctoral student [KRG] with previous practice experience as a social worker with individuals experiencing homelessness, including YEH, the HYHI lead investigators [DSM & SN] who both have practice experiences as a nurse and a social worker directly with YEH, and a research assistant with lived experience of homelessness [CB]. Guided by the research aims of the current study, the four members of the research

Table 1
Semi-structured interview guiding questions.

What specific services do you provide and how much of what you do focuses on YEH specifically?
If you think about the overall health needs of YEH, what do you see as the essential services? What service areas strike you as those that are highest priorities?
What challenges have you encountered in providing services to YEH?
What have you done that you feel has been particularly successful in providing services to YEH?
What barriers do you think prevent YEH from accessing your services or other needed services in the community?
Where do you see the gaps in the health and mental health services that are currently available for this group? What suggestions do you have for addressing these gaps?

team independently coded an initial set of three transcripts. Specifically, we coded each transcript using a thematic coding approach by organizing the data into chunks of text, grouping text into categories related to barriers and facilitators to healthcare access, and assigning a code (Creswell, 2009). We met multiple times to discuss, refine, and develop an initial codebook (MacQueen, McLellan, Kay, & Milstein, 1998). Specifically, we combined codes that were similar or overlapping and revised any discrepant codes using peer consensus. Then, the first author coded two additional transcripts using the developed codebook and added new codes as they emerged. We met again as a team to discuss and refine the newly added codes and finalize the codebook. The first author then coded all the transcripts and pulled exemplar quotes to represent potential themes derived from the data. No new themes were emerging after analysis of the 17 interviews. Therefore, no further data was collected. Based on the themes that emerged, we drew on constructs from the healthcare access frameworks proposed by Penchansky and Thomas and Levesque and colleagues to help organize the emergent themes and enhance our understanding and interpretation of the themes (Levesque et al., 2013; MacFarlane & O'Reilly-de Brún, 2012; Penchansky & Thomas, 1981). We incorporated the healthcare access frameworks in the later stage of the analysis process to avoid forcing the data into predetermined categories related to the various dimensions of healthcare access (Abraído-Lanza, Armbrister, Flórez, & Aguirre, 2006). We used ATLAS.ti (version 8.4.3) to assist with data analysis and management.

3. Results

Participants consisted of seven social service providers and 10 healthcare providers. Specifically, the social service providers included: two directors, one chief executive officer (CEO), one program director, two project managers, and one program manager. The healthcare providers included: four physicians, one director, one CEO, one psychologist, two nurse practitioners, and one patient navigator.

Several barrier and facilitator-related themes emerged relating to various dimensions of access (Table 2). Regarding approachability, providers (~35%) reported that a lack of awareness of various healthcare services in the community served as a barrier, as providers could only connect YEH to services they were aware of. However, providers (~18%) reported that shelter and housing program-based health assessments served as a facilitator, as they enabled providers to immediately identify potential health needs among YEH. Regarding acceptability, providers (~47%) reported that building trust and promoting an accepting service environment served as a facilitator. By contrast, providers reported that the failure of organizations to provide a gender and sexual orientation–affirming environment (~18%) and the failure to provide services in a trauma-informed manner (~24%) served as barriers. Regarding accommodation, providers (~60%) identified the healthcare delivery system's paperwork and documentation requirements, complex system navigation, and limited operating hours and slots for walk-ins as a barrier. By contrast, providers identified interagency partnerships and interprofessional collaborations (~65%), offering navigation assistance and accompanying YEH to appointments (~47%), and mobile services and co-location of services (~29%) as facilitators. Regarding affordability, providers (~53%) identified the cost of healthcare services as a barrier. To help offset the healthcare service cost for YEH, providers (~35%) reported using funding from multiple grants within and across healthcare agencies. In addition, providers (~41%) identified public health insurance and a local financial assistance program as a facilitator. Regarding adequacy, providers reported that the lack of consistency and continuity of care (~47%), as well as the lack of coordination of care (~18%), served as a barrier. Specifically, providers struggled to provide consistent and continuous care to a highly mobile population that was often difficult to reach. Providers also encountered challenges with coordinating YEH's care across healthcare facilities.

3.1. Approachability

3.1.1. Barrier: Lack of awareness of healthcare services

Social service providers reported they sometimes were unaware of various healthcare services available to YEH. For example, in reference to a specific healthcare clinic that serves the general homeless population, a project manager responded, "Did not even know that [organization name] has healthcare" (Provider [P]5, social services [SS]). Healthcare providers also expressed that the knowledge gap of available services prevented YEH from accessing healthcare. A shelter-based nurse practitioner explained that youth were often unaware his clinic existed: "I've been here six years, and I still get people, they're saying, 'I didn't even know it was a clinic in here.'… So that's the main thing, just letting them know" (P15, healthcare [HC]).

Providers expressed difficultly with continuously staying up-to-date on the full range of healthcare services available to YEH, especially while trying to fulfill other organizational and job responsibilities. A psychologist at a YEH-serving social services organization commented:

> I think the barrier is communication, right, between these places that provide…there are a lot of services in Houston, but the communication between facilities, between providers, especially when, I think, you're working with a high crisis population. I think there's—just kind of in your own world, doing those things (P14, HC).

To address the knowledge gap of available services, several providers expressed the need for a community-level healthcare navigator who could meet with YEH, identify their healthcare needs, and

Table 2
Dimensions of access and corresponding barriers and facilitators.

Dimension	Barriers	%	Facilitators	%
Approachability	(1) Lack of awareness of healthcare services	35.3	(1) Incorporating health assessments into social service agencies' intake protocols	17.6
Acceptability	(1) Lack of agency inclusivity of sexual and gender minorities	17.6	(1) Building trust and promoting an accepting service environment	47.1
	(2) Lack of trauma-informed care approach	23.5		
Accommodation	(1) Complex, high-barrier healthcare service delivery system	58.8	(1) Offering healthcare navigation assistance and accompanying YEH to appointments	47.1
			(2) Mobile services and co-location of services	29.4
			(3) Interagency partnerships and interprofessional collaborations	64.7
Affordability	(1) Cost of healthcare services	52.9	(1) Using multiple funding sources within and across agencies	35.3
			(2) Public health insurance and financial assistance program	41.2
Adequacy	(1) Lack of consistency and continuity of care	47.1	N/A	
	(2) Lack of care coordination across healthcare facilities	17.6		

establish a plan to connect youth to the appropriate healthcare services. The CEO of a social services agency commented:

> The problem is that everybody gets siloed… no one is really looking across this whole spectrum and trying to figure out how can we get YEH to access health services … So, it's almost like you need a health caseworker that somebody like us could call somebody—when we have a new client come into our program, we could call this health caseworker, and they could come over and just talk to the kid (P4, SS).

3.1.2. Facilitator: Incorporating health assessments into intake protocols

To better facilitate the process of connecting YEH to needed health services, one social service agency incorporated an in-depth health exam into their intake protocols. For example, a program director commented, "Everybody that is in our shelter has to have a medical assessment…They don't have to have it upon entering, but normally we like to get it between three to five days upon them entering into the crisis shelter" (P7, SS). Additionally, some agencies included additional health-related questions in their housing enrollment intake forms to help case managers determine to which healthcare services they should connect a young person. Furthermore, to ensure that all YEH referred into a housing program have an opportunity to discuss their health needs, leaders of the continuum of care reported that they were working to standardize the practice of how Rapid Re-housing providers assess and connect YEH to services. A project manager commented, "Anytime a client's enrolled into our housing program we should be taking note of what's going on and connecting them to services, whether they said they'd ever been diagnosed or not. Everybody needs a check-in every once in a while" (P3, SS).

3.2. Acceptability

3.2.1. Barrier 1: Lack of agency inclusivity of sexual and gender minority youth

Social service providers reported they were not willing to collaborate with or refer YEH to organizations that they perceived as non-affirming environments for sexual and gender minority youth. The CEO of a social services agency commented that he was very deliberate regarding the faith-affiliated organizations that his agency collaborates with: "We will only partner with faith communities that would not restrict our ability to do what we need to do for our kids, particularly as it concerns [sexual] orientation, gender identity, sexual health" (P4, SS). Similarly, a program manager reported he did not refer YEH to a specific healthcare clinic due to the potential discriminatory treatment that a sexual minority-identifying YEH might endure: "Unless I want to submit my clients to abuse and indoctrination, and especially if they're LGBT (lesbian, gay, bisexual, or transgender) or non-Christian, then I would not send them over there" (P1, SS). This program manager's reluctance to refer YEH to healthcare services within a healthcare clinic that they perceived as non-LGBT friendly was supported by a fellow healthcare provider who worked for an organization with discriminatory practices towards men who have sex with men (MSM). When asked about working with YEH who engage in high-risk sexual behaviors, the provider responded that gay-identifying youth are often reluctant to disclose their sexual orientation due to their organization's religious stigma.

3.2.2. Barrier 2: Lack of trauma-informed care approach

Social service providers expressed that some providers lack a deeper awareness of the impact that trauma has on a young person's life and how it may manifest in their behavior. For example, one provider explained that it is important for providers to be flexible and open-minded when working with YEH because YEH may sometimes act out or show up late to their appointments. Providers who do not operate from a trauma-informed care approach may inadvertently serve as a barrier to services for YEH, as a project manager commented:

> When you refer to a large organization …you kind of don't know what you're going to get. And so that, you can totally burn that bridge if you finally get this client to like, all right, I'll go see whoever, and then it doesn't go well because something happened, someone said something, someone looked at me a certain way, whatever it is. And then you've got to start all over again (P3, SS).

Another social service provider discussed the challenges that his organization faced with connecting YEH to a shelter-based clinic due to the clinic's non-trauma informed policies. Specifically, the clinic's strictly enforced rules and high behavioral expectations lacked consideration for the YEH population, as the director of a social services organization explained:

> They have a different expectation for behavior than we do. We understand our kids are traumatized and it affects behavior, and how kids think, and that they are in survival mode, and they've been told their whole lives that they are not worth living or caring for. And when we start to show them that we do care for them, sometimes they will do everything they can to show us that they are not worthy of that. So that's how we see behavior as separate from the person and that behavior is the result of something that's happened to them. It's not who they are (P2, SS).

3.2.3. Facilitator: Building trust and promoting an accepting service environment

Several healthcare providers attributed their success in reaching YEH to creating a service-delivery environment in which YEH felt welcomed, accepted, and comfortable. Providers expressed that YEH often feel stigmatized as a result of their homelessness situation and subsequently, it is important for providers to be non-judgmental and provide care in a manner that makes YEH feel comfortable. For the director of one healthcare organization, hiring staff that is representative of the populations that they serve is a key element to creating a service environment in which they can best reach YEH because "It creates more of a peer-to-peer interaction rather than—you know—'This is who I am. And I'm a professional. And you need to do what I tell you.'" (P12, HC) Another physician expressed that YEH do not "feel like a second-class citizen" (P10, HC) when they come in to receive services at her organization. Moreover, providers discussed the importance of building trust with YEH, as establishing trust with YEH served as a bridge to service engagement. For example, healthcare providers who conducted outreach at a YEH-serving agency were able to build trust with YEH by engaging them in a collaborative manner. A program manager explained:

> …the first thing they [healthcare providers] did is they came down and started playing cards with them, and then hang out with them, and then make themselves available as a regular human being, that they can actually be trusted. … Now the clients come to them. They approach them and say, 'Hey, I need this.' (P1, SS)

3.3. Accommodation

3.3.1. Barrier: Complex, high-barrier healthcare service delivery system

Many social service providers described the existing healthcare service delivery system as a complex, high-barrier system-of-care that was challenging for YEH to navigate. Providers expressed that YEH often struggle to meet healthcare agencies' paperwork and documentation requirements. For example, one provider reported that many YEH lack knowledge about their personal and family medical history and subsequently encounter difficulties completing medical intake forms. Additionally, some paperwork is not literacy appropriate for YEH, as a social services CEO commented, "Our kids often have a learning disability, have reading deficits, they don't handle paperwork

well. They see that as an obstacle" (P4, SS). Providers also expressed that agencies' numerous documentation requirements for service eligibility (e.g., ID, letter of verification of homelessness, proof of health insurance) often required YEH to visit multiple agencies to obtain the necessary documentation for services, thus creating immense access barriers for a population that has low self-efficacy to complete multiple steps for services. Furthermore, a project manager expressed that the expectation for YEH be able to successfully navigate a complex healthcare delivery system was unrealistic:

> There's only so much that can be done when you're living on the streets and the expectation of "get your shit together" that's a pretty high expectation for someone who's not sleeping regularly. The quality of sleep is very low, so that in itself is—how much expectation do you have on someone's physical health or mental health to be sufficient enough to go and continue to access services? Particularly if they feel safe in a certain part of town, or they have a group of friends or family that they're trying to stick close to, yeah, they're probably not going to go access services (P3, SS).

Several providers discussed the need for agencies to provide immediately accessible, point-of-contact healthcare services to YEH because providing a referral or scheduling an appointment in advance usually did not result in service connection. A project manager commented, "Getting youth to go or show up to anything is very difficult" (P5, SS). Similarly, a shelter-based physician recounted the difficulties his staff encountered when trying to connect a young person to contraceptive services at a near-by clinic since it is not offered at their location:

> …it's not uncommon for us to try to make four or five referrals for a kid to [agency name] …So we try to work on them—work with them, make them an appointment—so [agency name] is right over there, you can see it across the street and sometimes they don't get there so we'll circle back with them again (P13, HC).

Given YEH's need for immediately accessible healthcare services, providers expressed that healthcare facilities' limited hours of operation were a barrier. Aside from the emergency room, to which YEH often have to resort, providers reported that there was not an accessible healthcare facility that is open 24 hours to accommodate YEH who get sick on the weekends or after hours. A physician commented, "So I think the time that providers are available is important. I think that's probably one of the biggest barriers… because kids don't need services just 9:00 a.m. to 5:00 p.m." (P11, HC). Limited slots for walk-in appointments were also a barrier as one shelter-based healthcare provider reported that his clinic only had capacity to service two walk-in patients per day.

3.3.2. Facilitator 1: Offering healthcare navigation assistance and accompanying YEH to appointments

Social service and healthcare providers discussed the importance of providing navigation assistance to YEH, as many YEH may not have previously received guidance from their parents or guardians on how to navigate the healthcare system. For example, a psychologist explained, "It's that re-parenting piece, you know? If a nineteen-year-old were struggling with this but had an intact family home, that's something mom would take them to. And so, a lot of those technical pieces - being helped, being assisted [are missing]" (P14, HC). Providers taught YEH vital life skills by showing youth how to identify healthcare services online, discussing when to go to a clinic versus the emergency room, and demonstrating how to schedule an appointment.

Social service providers reported that accompanying YEH to healthcare appointments, as opposed to simply providing a referral, helped better ensure that YEH made it to a healthcare appointment. Providers also expressed that accompanying YEH to healthcare appointments enabled case managers to advocate on YEH's behalf, as a young person seeking services alone may encounter long wait times or be ignored when they ask for help. However, YEH are better attended to if their case manager is present, as a program manager explained, "A case manager goes with him. That makes—the whole story changes" (P1, SS).

3.3.3. Facilitator 2: Mobile services and co-location of services

To better facilitate YEH's connection to services, several healthcare providers brought their services to youth-serving agencies. Some of these services included HIV and STI testing and treatment, general healthcare services, and dental services. For example, a physician commented, "We do have a dental unit that goes out. It is a mobile unit that goes out to several locations and is stationed there for a month, until it takes care of the entire community in that area" (P9, HC).

Providers also discussed the benefits of co-locating healthcare and social services. A project manager reflected on his experience working at a homelessness services agency that was housed in the same building as a healthcare services agency, "It was really nice to be able to have that direct kind of referral. It wasn't just, here's your appointment, here's this, here's that. It was like, this is a true partnership" (P3, SS). In addition to bolstering cross-agency partnerships and facilitating direct referrals, one provider reported co-location of services could meet a critical mental health services gap at his agency. A social services director commented, "Clinical staff is outside of our typical service, so if there was an agency specific to funding that, that would place those people consistently at locations where it's needed most, I think that would go a really long way" (P2, SS).

3.3.4. Facilitator 3: Interagency partnerships and interprofessional collaborations

Providers reported that interagency partnerships helped streamline the referral process between agencies, thereby reducing some of the barriers YEH encounter when navigating the healthcare delivery system. A social services director explained how her agency developed a partnership with an adolescent-serving clinic: "We met them, and we told them how our kids work, they told us how they work, and we just kind of set the referral process and made it happen" (P6, SS). The resulting partnership helped ease the process of referring youth, scheduling appointments, and connecting youth with a healthcare professional. Several providers also commented that building interprofessional relationships provided them with direct organizational contacts that helped facilitate the service connection process. For example, the director at a healthcare organization commented on the benefits of collaborating with staff from a YEH-serving agency: "They call me or call my team whenever they have a client right in front of them… So, it's not necessarily a passive referral where you give them a flyer … We'll take care of it right then and there" (P12, HC). Another social service provider established a network of higher-level professionals across a range of healthcare agencies that can be called upon for assistance when YEH have an acute health need.

3.4. Affordability

3.4.1. Barrier: Cost of healthcare services

Social service providers reported there was limited availability of free and low-cost healthcare services for YEH. While social service providers collaborated with several healthcare facilities in their communities, many of the services that these clinics offered were based on insurance or sliding scale fees. In reference to a federally qualified health clinic (FQHC), a project manager commented, "I think they're a really great community clinic. But that's different than homeless services, and I have to remind myself a lot of times sliding scale is different than no money. That's a big gap" (P3, SS).

Healthcare and social service providers reported that the high cost associated with some healthcare services (e.g., dental and vision services, psychiatric medication) made them inaccessible to YEH. For example, a physician reported, "Medications can become an issue for

youth, especially some of the more expensive mental health medications. And so, ideally, if youth are able to get services and get prescriptions, then trying to fill them can also be a barrier" (P11, HC).

3.4.2. Facilitator 1: Using multiple funding sources within and across healthcare agencies

Healthcare providers strategically used multiple state and federally funded grants to meet the healthcare needs of YEH. In an effort to maximize the benefits YEH are eligible for, a healthcare director explained that his agency might pull from a funding source that has less stringent eligibility requirements if YEH do not have all their documentation during their first visit and then transfer YEH to additional funding sources when they bring the necessary documentation.

Healthcare providers also maximized the available funding across agencies to fully address YEH's health needs. Healthcare providers who work at more resource limited clinics reported they often connect YEH to larger healthcare facilities that have more funding to fill in the service gaps. For example, providers at a shelter-based clinic focused their limited resources on conducting medical screenings and addressing acute healthcare needs. A physician explained YEH were referred to a nearby FQHC for all other healthcare services, "We send out all the time…we really don't handle a lot of stuff in the clinic. Our doctors are here but we really work a lot with [FQHC clinic] … we try to keep our costs down as much as possible" (P11, HC).

3.4.3. Facilitator 2: Public health insurance and financial assistance program

YEH who were currently involved or aged-out of the foster care system qualified for Medicaid, which provided access to a range of preventative care and other medical services. A social services director reflected on the healthcare services available to YEH involved in the foster care system by commenting, "I think one thing that you have to keep in mind is: because they [foster care youth] have Medicaid, it is a very different…situation than another homeless kid without any… which I cannot imagine" (P6, SS).

Several healthcare providers expressed that a county-level healthcare financial assistance program, commonly known as the *Gold Card,* was a critical facilitator to healthcare access for YEH. A physician reported:

> For the kids who are really on their own who need public insurance, we try to arrange gold card, that is the probably the single—one of the most single important processes we—upon which access—hinges is the ability to get a gold card (P13, HC).

Individuals experiencing homelessness can access free healthcare services at affiliated clinics. A nurse practitioner commented, "We use the Gold Card system… And they [YEH] get a special one; it's a homeless Gold Card, where they don't have to have any copays. They don't pay for any testing or labs or anything like that" (P15, HC).

3.5. Adequacy

3.5.1. Barrier 1: Lack of consistency and continuity of care

Several participants reported challenges with providing consistent care due to the transient nature of YEH's living situation. For example, a psychologist commented:

> It's not uncommon for me to meet with somebody, they share this trauma history, they share depressive symptoms, and then maybe they discharge and I don't see them again. So that gap of the living situation changing, and therefore not being able to stick with a mental health professional over time (P14, HC).

Because providers typically only met with YEH one time, providers did not have the opportunity to establish a strong provider-patient relationship in which they could become familiar with a young person's healthcare needs and provide continuity of care. A physician further explained, "So all of the time, your story is always getting changed… it's always like the entire sentence, never like, 'Oh, hey, how's that asthma going? Is the inhaler good?' It's not like that for them" (P10, HC).

Healthcare providers also reported challenges with providing continuous care, as they often could not reach YEH to follow-up about an appointment reminder or share positive test results. For example, a nurse practitioner reported, "They'll come in 'I need a gonorrhea, chlamydia.' And then they won't follow up to get the results and get the treatment… And there's no phones or anything to try to call" (P15, HC).

3.5.2. Barrier 2: Lack of care coordination across healthcare facilities

Some providers reported challenges with coordinating care across healthcare facilities, which negatively impacted the care they were able to provide to YEH. For example, one physician explained that when he refers YEH to a specialist, it is helpful to know the outcome of a young person's results and treatment plan. However, the physician reported difficulties with obtaining information from other providers. Similarly, another physician reported difficulties accessing YEH's medical records from other healthcare facilities, thus limiting her ability to gain a clear picture of one's medical history. This physician expanded further on the need for providers to be able to easily and securely access YEH's medical records across healthcare facilities:

> To see records across facilities, so you can have a sense of diagnosis and medications that have been used in the past. Because I mean, if someone gave me the same med[icine] that didn't work last time, I'd be like, 'I'm not going back.' Right? They don't understand that you don't know that. And so, it gets really frustrating for them (P10, HC).

4. Discussion

This study explored providers' experiences and perceptions of the barriers and facilitators that impact YEH's access to healthcare services in Houston, TX. This study is among the first to seek insights from a range of administrative-level healthcare providers and social service providers. By drawing on the healthcare access frameworks proposed by Penchansky and Thomas (1981) and Levesque et al. (2013), we identified multiple barrier-and facilitator-related themes that reflect different dimensions of access. Identified barriers include: lack of awareness of healthcare services "approachability"; lack of real and perceived agency inclusivity of sexual and gender minorities, lack of trauma-informed care approach "acceptability"; complex, high-barrier healthcare service delivery system "accommodation"; and cost of healthcare services "affordability". Identified facilitators include: incorporating health assessments into intake protocols "approachability"; building trust and promoting an accepting service environment "acceptability"; offering healthcare navigation assistance and accompanying YEH to appointments, mobile and co-location of services, interagency partnerships and interprofessional collaborations "accommodation"; using multiple funding sources within and across agencies, public health insurance and financial assistance program "affordability"; lack of consistency and continuity of care, and lack of coordination across healthcare facilities "adequacy". Collectively, findings from this study indicate that these five dimensions of access are differentially related to service provision among YEH, and present new opportunities for policy and practice considerations designed to strengthen the way in which systems-of-care organize and deliver services to enhance YEH's access to healthcare.

Approachability can be enhanced by establishing agency policies and procedures that facilitate proactive identification of healthcare needs and connection to services, as many YEH lack a medical home and only seek healthcare in emergency situations (Ensign & Bell, 2004). By incorporating health exams and health-related questions into a social service agencies' intake protocols, social service providers can offer a bridge to critical preventive healthcare services that YEH may not

otherwise access. While findings from previous studies highlight the importance of conducting outreach to connect YEH to services (French et al., 2003; Hudson et al., 2010), this new finding from our study sheds light on the value of an agency's engagement in in-reach activities to ensure that a young person's interface with the homelessness service system also facilitates their access to healthcare services. Consistent with previous research (Gharabaghi & Stuart, 2010), our study findings show that providers lacked awareness and up-to-date knowledge of some existing healthcare services. To better facilitate efficient and effective utilization of available healthcare resources, systems-of-care may benefit from adopting patient navigators who can support YEH's access to healthcare and social services across agencies and services (Carter et al., 2018; Dang, Whitney, Virata, Binger, & Miller, 2012).

Organizations with policies and practices that discriminate based on sexual orientation or gender identity are less acceptable and create missed opportunities to connect YEH with needed healthcare services. For example, challenges arose with discussing HIV prevention strategies with MSM-identifying YEH because a particular organization's stigmatizing ideology did not foster a safe space in which these young people felt comfortable disclosing their sexual orientation or sexual behaviors. Consistent with our study findings, a previous study conducted with shelter staff and LGBTQ-identifying YEH found that youth did not feel safe coming out as LGBTQ or completely avoided shelters due to discrimination, homophobia and transphobia, and a lack of LGBTQ training within the shelter system (Abramovich, 2016). Our study findings demonstrate the need for healthcare professionals to provide gender affirming and non-judgmental care. To ensure services are acceptable to YEH and to referring community organizations, all organizations and especially those perceived as non-affirming, should conduct regular assessments of user experiences and implement processes designed to reduce stigma and promote inclusivity. Organizations that are struggling in this area may further benefit by pairing up with organizations that have a strong reputation for promoting inclusivity. Beyond this, it is important for organizations perceived as non-affirming to inform referring community partners of the work they are doing in this area.

In addition to a lack of inclusivity, organizations are less acceptable when they fail to recognize the impact of trauma on young people's lives. The healthcare service system can potentially be a source of re-traumatization, as YEH have previously described the healthcare seeking process as distressing and dehumanizing (Christiani et al., 2008). To make services more acceptable to YEH, our study findings, as well as those of other studies, highlight the need for healthcare services to be delivered in an inclusive, youth-friendly, and trauma-informed manner (Abramovich, 2016; Ambresin, Bennett, Patton, Sanci, & Sawyer, 2013; Beharry et al., 2018; Gharabaghi & Stuart, 2010). Specifically, it is important for providers to develop trust with YEH and to collaboratively involve youth in the healthcare decision making process (Ambresin et al., 2013; Aykanian, 2018; Kidd et al., 2007). Providers should be respectful, non-judgmental, honest and strive to make YEH feel valued, comfortable, and listened to (Ambresin et al., 2013; Darbyshire, Muir-Cochrane, Fereday, Jureidini, & Drummond, 2006; French et al., 2003; Kidd et al., 2007; Stewart et al., 2010). As recommended by Slesnick et al. (2009), service provider training should focus on relationship building (i.e. maintaining confidentiality, fostering a non-judgmental approach) to improve engagement of YEH in healthcare and social services (Slesnick et al., 2009). Policies and procedures that inform healthcare services and practices should be developed in a way that allow for service flexibility, tolerance of repeated attempts to achieve goals, and a forgiving attitude towards unmet expectations, rule-breaking, and acting out (Aykanian, 2018; Gharabaghi & Stuart, 2010; Kidd et al., 2007; Stewart et al., 2010). Lastly, providers who interface with YEH should receive training in trauma-informed care, youth-friendly healthcare delivery, and LGBTQ cultural competency (Abramovich, 2016; Ambresin et al., 2013).

Accommodation has a critical impact on YEH's access to healthcare, as this dimension included the most commonly reported barrier and facilitator. Specifically, the complex way in which healthcare services are currently organized and delivered fails to accommodate YEH, a population that needs low-threshold access to youth-centered healthcare services. Findings from our study, as well as those of other studies, show that system, program, and insurance requirements such as identification, documentation of service eligibility, taxing intake paperwork, and completing multiple steps and referrals for services, create significant challenges for YEH, as many of these young people do not have the skills and preparation necessary to navigate high-barrier healthcare service systems (Christiani et al., 2008; Dawson & Jackson, 2013; Ensign & Bell, 2004; Gharabaghi & Stuart, 2010). By guiding YEH through each step of the service-seeking process, providers in our study helped young people overcome healthcare access barriers and equipped them with vital service navigation skills. Consistent with these findings, a previous study found that YEH are less likely to fall through the cracks during service referrals when providers supported a young person's transition to a new service provider by making phone calls on a young person's behalf to connect them to a new provider, taking the young person to meet the provider, and conducting joint sessions (Black et al., 2018). Additionally, our study findings show that bringing healthcare services to agencies in which YEH congregate through the use of mobile services and co-location of healthcare services reduces the need for YEH to visit multiple agencies to access healthcare and facilitates point-of-care service delivery. Previous studies have also found that YEH prefer healthcare services to be delivered at YEH-serving agencies, as it is both convenient and increases YEH's likelihood of receiving services (Christiani et al., 2008; Ensign & Bell, 2004; Gharabaghi & Stuart, 2010). Drop-in centers, in particular, may an optimal service site for the delivery of healthcare services, as one study that aimed to engaged service-disconnected YEH found that, in comparison to shelters, YEH prefer to access services from drop-in centers and their connection to drop-in centers is associated with more overall service use (Slesnick et al., 2016). Findings from our study also demonstrate that cross-agency partnerships and collaborations enabled YEH-serving providers to develop referral protocols and establish a more direct connection to healthcare services. Findings from other studies conducted with YEH-serving providers further highlight the benefits of developing cross-agency relationships and collaborations, including increased access to services, increased efficiency by reducing duplication of information and resources, delineating provider roles, and increased awareness of other services (Black et al., 2018; Gharabaghi & Stuart, 2010).

There are a limited amount of affordable healthcare services for YEH, especially given that many of these young people are uninsured and lack financial resources. Our study findings showed that there were not enough low-cost and free healthcare services to meet YEH's healthcare needs. In previous studies, YEH have identified the cost of services as a barrier to accessing healthcare services (Christiani et al., 2008; Hudson et al., 2010). Although there is a high need for healthcare services among YEH, research indicates that need for services does not predict the prevalence of YEH-specific services (Esparza, 2009). To overcome shortages in YEH-specific healthcare resources, our study findings show that providers in resource-limited YEH-serving clinics maximized clinic funding by only addressing acute health needs and facilitating YEH's enrollment into other non-YEH specific healthcare clinic programs for comprehensive care. Thus, providers demonstrated that collaborative initiatives among healthcare organizations with funding for underserved populations, such as FQHC's, and YEH-serving organizations can serve as a gateway in which YEH can tap into a broader pool of state and local-level healthcare funding directed towards vulnerable populations. Providers in our study also identified YEH's lack of health insurance as a barrier; a finding that has been previously reported (Ensign & Bell, 2004; Hudson et al., 2010). To better ensure healthcare coverage for all YEH, expanding Medicaid in all 50 states, including Texas, is critical to addressing the needs of vulnerable young adults. In addition, increased funding of local

financial assistance programs, such as Harris County's Gold Card Program, can serve as a stop-gap measure.

The adequacy of healthcare services that YEH receive is limited when providers are restricted in their ability to provide ongoing, continuous, and coordinated care. Developing a trusted provider-patient relationship is key for YEH, as the need for adult connections is often an organizing principle in the lives of vulnerable young adults (Noble-Carr, Barker, McArthur, & Woodman, 2014). However, our study findings revealed that providers often missed out on the opportunity to establish an ongoing, trusted relationship when young people could only meet with a provider one time due to unstable housing related challenges (e.g., frequent mobility, limited resources). Our study findings also showed that providers encountered challenges with coordinating YEH's care across facilities, which negatively impacted YEH's healthcare experience. Consistent with these findings, previous studies have found that YEH become frustrated and sometimes disengaged with services when they had to retell their story every time they met with a new provider due to lack of care coordination in the referral process (Black et al., 2018; Christiani et al., 2008; Darbyshire et al., 2006). YEH-serving systems-of-care should consider implementing strategies aimed to strengthen YEH's continuity and coordination of care, such as establishing collaborative networks of care, utilizing a multidisciplinary, integrated, or team-based approach to care, offering case management, patient support, and outreach services, and utilizing web-based personal health information systems in which YEH can securely store their health histories and important health documents (Ambresin et al., 2013; Beharry et al., 2018; Dang et al., 2012). In addition, there is an increased need for systems-of-care to work towards achieving interoperability (Holmgren, Patel, & Adler-Milstein, 2017) so that YEH-serving healthcare providers across settings can securely find, send, receive, and integrate YEH's medical records.

The findings from our study should be considered in light of its limitations. First, our sample size was composed of 17 social service and healthcare providers. While our goal was to target agencies that served YEH, given the small sample size and use of purposive sampling, the results may not reflect the perspectives of all healthcare and service providers who serve YEH throughout the greater Houston area. Houston is a large urban city with a wide range of healthcare and social service agencies. Providers from rural communities or communities with a limited number of service agencies may have different perspectives and experiences related to the factors that impact YEH's access to healthcare services. Second, we interviewed providers who held administrator positions due to their knowledge about agency services, as well as their potential to offer a micro- and macro-level perspective regarding barriers and facilitators to YEH's access to healthcare. As such, the study participant's perspective may differ from that of other agency staff members who do not hold administrative-level provider positions. However, by gaining the perspective of providers who served in either the direct practice role, the agency administrator role, or both, we gained insight on the barriers and facilitators that occur at the direct service level, as well the agency and systems level.

5. Conclusion

This study is among the first to gain insight from a range of administrative healthcare and social service providers on the barriers and facilitators that impact YEH's access to healthcare services. The study findings highlight the mismatch between the high-barrier, adult-centered way in which healthcare services are delivered and YEH's need for healthcare services that are flexible, youth-centered, and easily accessible. To better ensure YEH have access to existing healthcare services, there is a need for all YEH-serving organizations to have policies that promote youth inclusion and reflect the needs and rights of YEH (Beharry et al., 2018). Moreover, YEH-serving organizations should use a trauma-informed care approach to guide all organizational policies, programs, practices and client interactions. Strengthening interagency collaborations across YEH-serving healthcare and social service agencies is critical, as these relationships can pave the way for putting systems in place that help streamline YEH's connection to healthcare services. There is also a need for systems-of-care to implement service delivery strategies, such as mobile services and co-location of services, that allow for low-threshold service access and immediate delivery of healthcare services to YEH. Additional research is needed to develop and evaluate intervention strategies, such as youth-friendly patient navigators and tailored web-based personal health information systems, that aim to increase YEH's access to healthcare services (Dang et al., 2012). Future research can extend these study findings by further examining the relationships between the dimensions of healthcare access and their impact on service provision among YEH. In addition, future research can build on these study findings by exploring the congruence between the experience and perceptions of providers related to factors that impact YEH's access to care and that of YEH.

CRediT authorship contribution statement

Kathryn R. Gallardo: Formal analysis, Writing - original draft, Writing - review & editing, Visualization. **Diane Santa Maria:** Conceptualization, Methodology, Formal analysis, Investigation, Writing - review & editing. **Sarah Narendorf:** Conceptualization, Methodology, Formal analysis, Investigation, Writing - review & editing. **Christine M. Markham:** Writing - review & editing. **Michael D. Swartz:** Writing - review & editing. **Charles M. Batiste:** Formal analysis.

Acknowledgements

We would like to thank the providers who participated in the Homeless Youth Healthcare Initiative. We would also like to thank Lionel Santibáñez for his editorial assistance.

Funding

This work was supported by the Simmons Foundation.

Declaration of Competing Interest

None.

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