Patient and Clinician Sociodemographics and Sexual History Screening at a Multisite Federally Qualified Health Center: A Mixed Methods Study

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ABSTRACT

PURPOSE In 2018, there were 68 million sexually transmitted infections in the United States. Sexual history screening is an evidence-based practice endorsed by guidelines to identify risk of these infections and adverse sexual health outcomes. In this mixed methods study, we investigated patient- and clinician-level characteristics associated with receipt of sexual history screening, and contextualized these differences in more depth.

METHODS We collected sociodemographics of patients from the electronic health record and sociodemographics of their primary care clinicians via a census survey. Semistructured interviews were conducted with key practice staff. We conducted multilevel crossed random effects logistic regression analysis and thematic analysis on quantitative and qualitative data, respectively.

RESULTS A total of 53,246 patients and 56 clinicians from 13 clinical sites participated. Less than one-half (42.4%) of the patients had any sexual history screening documented in their health record. Patients had significantly higher odds of documented screening if they were gay or lesbian (OR = 1.23), were cisgender women (OR = 1.10), or had clinicians who were cisgender women (OR = 1.80). Conversely, patients' odds of documented screening fell significantly with age (OR per year = 0.99) and with the number of patients their clinicians had on their panels (OR per patient = 0.99), and their odds were significantly lower if their primary language was not English (OR = 0.91). In interviews, key staff expressed discomfort discussing sexual health and noted assumptions about patients who are older, in long-term relationships, or from other cultures. Discordance of patient-clinician gender and patients' sexual orientation were also noted as barriers.

CONCLUSIONS Interventions are needed to address the interplay between the social and contextual factors identified in this study, especially those that elicited discomfort, and the implementation of sexual history screening.

INTRODUCTION

Reported rates of sexually transmitted infections (STIs) have consistently increased over time, with a preliminary estimate of 2.5 million cases in the United States in 2021.[1] Sexual history screening (SHS) is an evidence-based medical practice endorsed by guidelines to identify risk of STIs (including HIV) and adverse sexual health outcomes.[2-4] Primary care settings are a ripe environment for universal SHS, as patients predominantly report seeking STI care from their primary care clinician, and primary care clinics diagnose approximately one-half of all reported STIs annually.[5]

However, sexual history screening is not routinely implemented with clinician-reported screening rates of less than 50%.[2,3,6-9] Among other implementation factors, patient characteristics may critically influence clinicians' SHS behaviors. Previous research demonstrated that patients' older age, gender, cultural background (eg, race, ethnicity, religion), and sexual and/or gender minority (SGM) status were associated with lower SHS rates.[6,7,9-12] This research also indicated that clinicians' gender, degree, and years of practice influenced their SHS behaviors.[6,7,9,10,13] Understanding patient and clinician characteristics associated with SHS is necessary to identify disparities in screening and opportunities for intervention to improve systematic uptake of SHS as part of routine clinical care.

Conflicts of interest: authors report none.

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Research has not yet explored the SHS behaviors of primary care clinicians at Federally Qualified Health Centers (FQHCs), which are funded to provide primary care services in underserved areas and to at-risk and vulnerable populations.[6,7,9-17] FQHC patients are more likely to be racial and ethnic minorities, have less education, have Medicaid or no insurance, and/or live in a rural area compared with patients at private primary care clinics.[18,19] Furthermore, there is preliminary evidence that primary care clinicians at FQHCs may have different treatment and counseling behaviors compared with their private practice peers.[19-21]

The aim of this mixed methods study was to elucidate the relationship between the sociodemographics of adult FQHC patients and primary care clinicians and SHS, and to obtain further insight from nested qualitative interviews with key staff. The results of this study will lay a foundation for interventions by identifying which patient and clinician characteristics may warrant targeted intervention and how these characteristics play a role in the implementation of SHS from the perspective of primary care clinicians. This study may inform clinician training, patient education, and organizational policy to increase SHS practices in routine clinical care at FQHCs.

METHODS

We gathered data from a multisite FQHC in Connecticut that delivers care to more than 145,000 pediatric and adult patients annually. This study focused on main medical sites, which are situated in 5 of 8 counties and provide medical, dental, and behavioral health services to underserved communities.[16,17] This study was approved via expedited review by the institutional review board at Community Health Center, Inc, with a reliance agreement review by the University of Pittsburgh, and prior approval from the National Center for Advancing Translational Sciences.

Eligibility

The sample population for the quantitative part of this study were patients aged 18 years or older who had documented medical visits at a medical site between June 2018 to December 2019 and whose primary care clinician was listed in the electronic health record (EHR) and still employed at the time of the study. The sample population for the qualitative part of this study were key staff: active, nonpediatric primary care clinicians and clinical leadership.

Quantitative Methods

Data Source and Collection
Data were collected from the EHR and a clinician survey. The EHR data included patients' age, sexual orientation, gender identity, race, ethnicity, primary care site, primary language, insurance status, and response to SHS questions, as well as their primary care clinicians' name, medical credentials, and number of empaneled patients.

The EHR data were also used to ascertain eligibility of the clinicians for inclusion in a census survey. To collect sociodemographics for the primary care clinicians, we created a brief questionnaire in Qualtrics (Qualtrics International Inc) and disseminated it via the organization's e-mail system. Census sampling was used to recruit as many clinicians as possible. The clinicians were compensated $10 via a prepaid gift card for survey participation.

A full list of study variables, including how they were measured and transformed for analysis, can be found in the Supplemental Table.

Outcome

Our main outcome was documentation in the EHR of standard of care SHS, which contains questions recommended by the Centers for Disease Control and Prevention,[3,22] including: (1) Have you been sexually active in the last 12 months? (2) With men, women, or both? and (3) Did you use protection during your last sexual encounter? We searched the EHR for patients' responses to these questions. If any sexual history response was present, this variable was coded as 1; if no response was recorded, it was coded as 0.

Primary predictors included both patient and primary care clinician sociodemographics. For patients, we ascertained age, sexual orientation, gender identity, race, ethnicity, primary care site, primary language, and insurance status. For clinicians, we ascertained medical credentials, number of empaneled patients, age, sexual orientation, gender identity, race, ethnicity, years of employment at the health center, years since graduating from their clinical degree program, and years since completing postgraduate training.

Analysis

We conducted analyses in Stata/SE version 16.1 (StataCorp LLC) including descriptive statistics for patient- and clinician-level sociodemographics and bivariate analyses exploring associations of these sociodemographics with documented SHS. A multilevel crossed random effects logistic regression analysis was conducted containing all predictor sociodemographics while clustering patients within primary care clinician and medical site (because the clinicians provided care at multiple sites). Statistical significance was set at $P < .05$.

Qualitative Methods

To add context to our quantitative findings, we analyzed a subset of data from semistructured interviews with key staff to understand the perspectives of key individuals on SHS practices and related patient and clinician characteristics. Additional information about the methodology for this aim can be found in the Supplemental Appendix.

Recruitment

We extracted a list of active, nonpediatric primary care clinicians and nurses from the organization's internal listserv and identified clinical leadership via the organization's website. A

recruitment e-mail was distributed twice a month from May 2021 to August 2021. After the first 12 interviews, we purposively invited subsequent participants to participate based on their clinical credential: medical doctor, advanced practice registered nurse, doctor of osteopathic medicine, or physician assistant. Participants chose whether to be interviewed virtually or telephonically. At the end of each interview, participants were provided with a $20 prepaid gift card.

Analytic Procedure

A 3-person team (M.H., K.W.G., and Bobby O'Brien) used inductive reasoning and an interpretivist approach, with consideration for the quantitative results, to thematically analyze the data in alignment with methods described by Braun and Clarke[23] and Clarke et al[24] using NVivo 12 (QSR International). After familiarizing themselves with the data, 2 researchers (M.H., K.W.G.) reviewed all transcripts and documented preliminary codes to develop an initial understanding of the data. They then independently generated a list of codes, compared these lists, and resolved any inconsistencies. After the primary researcher (K.W.G.) developed definitions, the codes and definitions were tested and modified to finalize the codebook.

The final codebook was tested independently by 2 researchers on 5 transcripts. After resolving any disagreements in code assignment, the remaining transcripts were divided between the 2 researchers (K.W.G., Bobby O'Brien) and coded using the final codebook. After this process was complete, researchers read through the coded data to draw connections between codes and patterns across codes to identify key themes and subthemes.

RESULTS

Quantitative Results

Quantitative analyses were based on 53,246 patients and 56 primary care clinicians. The response rate to the primary care clinician survey was 65%.

Sociodemographics of the patients are provided in Table 1. The majority were Hispanic (52.8%), heterosexual (95.2%), and cisgender women and men (58.1% and 41.0%, respectively). English was the most common primary language (70.3%) and more than one-half of the patients had Medicaid insurance (59.1%).

Sociodemographics of the primary care clinicians are provided in Table 2.

Table 1. Sociodemographics of Patients (N = 53,246)

Sociodemographic	Total[a] (N = 53,246)	Documentation of Sexual History Screening[b]		P Value
		Any (n = 22,581)	None (n = 30,665)	
Age, mean (SD), y	43.1 (15.7)	42.3 (15.6)	43.8 (15.7)	<.05
Race/ethnicity, No. (%)				<.001
White non-Hispanic	14,580 (30.3)	5,930 (40.7)	8,650 (59.3)	
Hispanic	25,371 (52.8)	10,790 (42.5)	14,581 (57.5)	
Black non-Hispanic	5,607 (11.7)	2,465 (44.0)	3,142 (56.0)	
Asian non-Hispanic	1,556 (3.2)	622 (40.0)	934 (60.0)	
Other non-Hispanic	945 (2.0)	404 (42.8)	541 (57.3)	
Sexual orientation, No. (%)				<.001
Heterosexual	47,243 (95.2)	20,722 (43.9)	26,521 (56.1)	
Gay and lesbian	1,107 (2.2)	555 (50.1)	552 (49.9)	
Bisexual	1,029 (2.1)	506 (49.2)	523 (50.8)	
Other	230 (0.5)	110 (47.8)	120 (52.2)	
Gender, No. (%)				<.001
Cisgender woman	29,059 (58.1)	13,236 (45.6)	15,823 (54.5)	
Cisgender man	20,517 (41.0)	8,641 (42.1)	11,876 (57.9)	
Transgender woman	227 (0.5)	100 (42.3)	127 (57.7)	
Transgender man	220 (0.4)	93 (44.1)	127 (56.0)	
Primary language, No. (%)				<.01
English	37,455 (70.3)	16,053 (42.9)	21,402 (57.1)	
Other	15,761 (29.7)	6,528 (41.3)	9,263 (58.7)	
Insurance status, No. (%)				
Uninsured	6,692 (12.6)	2,809 (42.0)	3,883 (58.0)	
Medicare	4,929 (9.3)	2,129 (43.2)	2,800 (56.8)	
Medicaid	31,389 (59.1)	13,355 (42.6)	18,034 (57.5)	
Private insurance	8,865 (16.7)	3,733 (42.1)	5,132 (57.9)	
Other public insurance	1,277 (2.4)	513 (42.6)	764 (57.5)	
Medical site, No. (%)				<.001
Site 1	9,241 (17.4)	2,837 (30.7)	6,404 (69.3)	
Site 2	8,578 (16.1)	2,571 (30.0)	6,007 (70.0)	
Site 3	7,446 (14.0)	4,679 (62.8)	2,767 (37.2)	
Site 4	7,288 (13.7)	2,511 (34.5)	4,777 (65.6)	
Site 5	3,937 (7.4)	1,681 (42.7)	2,256 (57.3)	
Site 6	2,939 (5.5)	1,049 (35.7)	1,890 (64.3)	
Site 7	2,596 (4.9)	1,347 (51.9)	1,249 (48.1)	
Site 8	2,282 (4.3)	1,207 (52.9)	1,075 (47.1)	
Site 9	2,146 (4.0)	1,558 (72.6)	588 (27.4)	
Site 10	2,065 (3.9)	1,510 (72.1)	555 (26.9)	
Site 11	1,971 (3.7)	609 (30.9)	1,362 (69.1)	
Site 12	1,602 (3.0)	421 (26.3)	1,181 (73.7)	
Site 13	1,155 (2.2)	601 (51.9)	554 (48.1)	

[a] Percentages total down the column to show the distribution of all patients by sociodemographics.
[b] Percentages total across rows to show the distribution of patients having a given sociodemographic between the sexual history documentation groups.

Table 2. Sociodemographics of Primary Care Clinicians (N = 56)

Sociodemographic	Total (N = 56)
Age, mean (SD), y	43.5 (12.1)
Race and ethnicity, No. (%)	
White non-Hispanic	39 (69.6)
Hispanic	4 (7.1)
Black non-Hispanic	4 (7.1)
Asian non-Hispanic	0 (0.0)
Other non-Hispanic	9 (16.1)
Sexual orientation, No. (%)	
Heterosexual	54 (94.7)
Gay and lesbian	1 (1.8)
Bisexual	0 (0.0)
Other	1 (1.8)
Gender identity, No. (%)	
Cisgender woman	39 (68.4)
Cisgender man	17 (29.8)
Transgender woman	0 (0.0)
Transgender man	0 (0.0)
Years of employment, mean (SD)	7.1 (8.4)
Clinical credential, No. (%)	
Advanced practice registered nurse	35 (61.4)
Medical doctor	17 (29.8)
Physician assistant	3 (5.3)
Doctor of osteopathic medicine	2 (3.5)
Patient panel size, mean (SD)	1,308 (751)
Years since training landmarks, mean (SD)	
Credentialing degree	12.3 (11.5)
Postgraduate training	10.4 (12.7)
Any additional training	15.4 (16.9)

Table 3. Association of Patient and Clinician Sociodemographics With the Odds of Sexual History Screening

Sociodemographic	OR[a] (95% CI)	P Value
Patients		
Intercept	0.52 (0.33-0.82)	...
Age, per year	0.99 (0.99-0.99)	**<.001**
Race/ethnicity		
White non-Hispanic	1.00 (referent)	...
Hispanic	1.02 (0.95-1.01)	.52
Black non-Hispanic	1.01 (0.92-1.01)	.87
Asian non-Hispanic	0.88 (0.76-1.01)	.07
Other non-Hispanic	1.05 (0.57-1.33)	.52
Sexual orientation		
Heterosexual	1.00 (referent)	...
Gay or lesbian	1.23 (1.04-1.47)	**.02**
Bisexual	1.12 (0.94-1.34)	.22
Other	0.87 (0.57-1.33)	.52
Gender		
Cisgender man	1.00 (referent)	...
Cisgender woman	1.10 (1.04-1.16)	**<.001**
Transgender man	1.07 (0.72-1.60)	.74
Transgender woman	1.26 (0.86-1.84)	.23
Primary language		
English	1.00 (referent)	...
Other	0.91 (0.85-0.97)	**.006**
Insurance status		
Private insurance	1.00 (referent)	...
Uninsured	0.95 (0.86-1.05)	.33
Medicare	1.07 (0.97-1.19)	.17
Medicaid	1.00 (0.93-1.08)	.91
Other public	0.9 (0.75-1.07)	.22
Clinicians		
Age, per year	1.01 (0.98-1.04)	.60
Race/ethnicity		
White non-Hispanic	1.00 (referent)	...
Black non-Hispanic	0.86 (0.37-1.99)	.72
Hispanic	1.30 (0.51-3.29)	.58
Other non-Hispanic	0.92 (0.41-1.67)	.59
Sexual orientation		
Heterosexual	1.00 (referent)	...
Gay or pansexual	1.26 (0.07-23.3)	.88
Gender identity		
Cisgender man	1.00 (referent)	...
Cisgender woman	1.80 (1.00-3.21)	**.048**
Years of employment	0.98 (0.95-1.02)	.37
		continues

OR = odds ratio.

Note: Bold indicates a statistically significant association (P <.05).

[a] Estimated using multilevel crossed random effects logistic regression analysis, with adjustment for patients' age, race and ethnicity, sexual orientation, gender, primary language, insurance status, and patients' primary care clinicians' age, race/ethnicity, sexual orientation, gender identity, years of employment, and clinical credentials while clustering by primary care clinician and medical site.

The mean age was 43 years; on average, clinicians had been employed 7 years, were 12 years out from medical credential completion, and were 10 years out from postgraduate training completion. A majority of clinicians were White non-Hispanic (69.6%), heterosexual (94.7%), cisgender women (68.4%), and advanced practice registered nurses (62.5%).

Less than one-half of patients (42.4%) had any SHS documented in the EHR. When accounting for clustering by both primary care clinician and medical site, gay or lesbian patients had significantly higher odds of documented screening compared with heterosexual patients (OR = 1.23; 95% CI, 1.04-1.47) (Table 3). Similarly, odds were higher for patients who were cisgender women (OR = 1.10; 95% CI, 1.04-1.16) and for patients whose clinicians were cisgender women (OR = 1.80; 95% CI, 1.00-3.21) compared with patients who were cisgender men and whose clinicians were cisgender men, respectively. Conversely, patients' odds of documented screening fell significantly with age (OR per year = 0.99; 95% CI, 0.99-0.99) and with the number of patients their clinicians had on their panel (OR per patient = 0.99; 95% CI, 0.99-0.99), and the odds

Table 3. Association of Patient and Clinician Sociodemographics With the Odds of Sexual History Screening (continued)

Sociodemographic	OR[a] (95% CI)	P Value
Clinical credentials		
Advanced practice registered nurse	1.00 (referent)	...
Medical doctor	0.99 (0.49-2.01)	.99
Physician assistant	1.07 (0.22-5.22)	.93
Doctor of osteopathic medicine	1.15 (0.31-4.21)	.83
Patient panel size, per patient	0.99 (0.99-0.99)	**.02**

OR = odds ratio.

Note: Bold indicates a statistically significant association (P <.05).

[a] Estimated using multilevel crossed random effects logistic regression analysis, with adjustment for patients' age, race and ethnicity, sexual orientation, gender, primary language, insurance status, and patients' primary care clinicians' age, race/ethnicity, sexual orientation, gender identity, years of employment, and clinical credentials while clustering by primary care clinician and medical site.

were significantly lower for patients who spoke a primary language other than English (OR = 0.91; 95% CI, 0.85-0.97).

Qualitative Results

The characteristics of the 21 key staff who participated in interviews are shown in Table 4. Participants reported specific patient characteristics that influenced the perceived ease of implementing SHS. Patients' gender, age, relationship status, culture, and SGM status were frequently mentioned as characteristics driving clinicians' comfort, ability, and decisions to ask SHS questions. Additionally, the approach to SHS differed between clinicians by gender. Exemplary quotes can be found in Table 5.

Clinicians explained how patients' discomfort with SHS and with discussing sexual health in general was often influenced by discordance between the patients' and clinicians' genders. They believed patients thought their clinician would not understand either because they did not have the same lived experiences or because discussing sex with a clinician of different sex was awkward.

Patients' age was frequently noted as a determining factor regarding the necessity of SHS. Unless an older patient brought up a sexual health issue, clinicians were unlikely to inquire under the false assumption that older adults were not having sex or that sexual function was no longer relevant. Some clinicians also noted they felt uncomfortable asking older patients about their sex lives out of fear of offending them and believed that it was the responsibility of older patients to voice concerns about or changes in their sex life. This viewpoint was pronounced for older patients who were in long-term, monogamous relationships. Clinicians stated that their familiarity with the patients and their partners gave them the impression that STI risk was not a concern.

In combination with age and relationship status, culture and religion were frequently mentioned as patient characteristics serving as a barrier to clinicians initiating SHS. Participants stated that they hesitated to conduct SHS with patients from certain cultures and religions, operating under the assumption that some cultures and religions hold stringent standards on sexual practices and monogamy that would preclude patients from being at risk of STIs within a marriage. Specifically, clinicians mentioned patients from Southeast Asian countries and Muslim patients. From the clinicians' perspective, this concern was pronounced for patients who immigrated from other countries during their adulthood.

Clinicians stated that patients from these cultures also typically brought another person, usually a family member, with them during the medical visit. They described how the presence of another person made the conversation more uncomfortable and decreased the patients' inclination to disclose sexual history. If the patient had had an STI exposure or had a sexual health concern, they might not tell their clinician because someone whose opinion they cared about was present.

This viewpoint was also noted and particularly pronounced for patients aged younger than 18 years, who were often accompanied by parents or caregivers. The presence of parents or caregivers was a frequently cited barrier to screening for sexual health with this population. Despite this barrier, participants recognized the importance of SHS in this age group and would report asking these questions of adolescent patients on a routine basis. Clinicians often noted that

Table 4. Sociodemographics of Key Staff Participating in Interviews (N = 21)

Sociodemographic	Staff, No. (%) (N = 21)
Primary care clinician	16 (76.2)
Degree	
Advanced practice registered nurse	11 (68.8)
Medical doctor	3 (18.8)
Doctor of osteopathic medicine	2 (12.5)
Physician assistant	1 (6.3)
Medical assistant	3 (14.3)
Clinical leader	2 (9.5)
Gender	
Cisgender woman	14 (66.7)
Cisgender man	7 (33.3)
Transgender woman	0 (0.0)
Transgender man	0 (0.0)
Sexual orientation	
Heterosexual	19 (90.5)
Gay or lesbian	1 (4.8)
Bisexual	0 (0.0)
Other	1 (4.8)
Race/ethnicity	
White non-Hispanic	11 (52.4)
Hispanic	3 (14.3)
Black non-Hispanic	2 (9.5)
Asian non-Hispanic	2 (9.5)
Other non-Hispanic	3 (14.3)

adolescent patients were uncomfortable with the questions; however, the questions were developmentally important and therefore prioritized during medical visits.

Similarly, clinicians also frequently stated they would prioritize SHS for patients who reported having sex with a same-sex person or who belonged to an SGM group. Two clinicians remarked that targeted screening may be unintentionally discriminatory.

In an exploration of clinicians' gender, women and men described their approaches to SHS differently. Women shared

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Table 5. Summary of Qualitative Results and Key Quotes

Theme	Summary	Quote
Patient gender	Clinicians perceived discomfort from patients when they were not of the same gender.	"I'm a woman and the other person is a guy, and then I have to ask a different sexual history, yeah, some young men, they're a little embarrassed. And some of my older patient are in [their] 50s, when they want to talk about sexual history, they will ask for a male provider even though I'm their primary care physician. So that would be the hard part. But otherwise, that's patient preference, so that's fine." – DO
Older age	Clinicians stated they ask older patients sexual history questions less frequently compared with other patients, often stemming from the assumption that older patients are not having sex or are not at risk of negative sexual health outcomes.	"If I'm going to be honest, if it's an older patient–when I say older, let's see, like over 50, and if it's someone I know, pretty stable, straightforward, I really know the person, I'm not going to engage in sexual history with that person unless something comes up or that patient brings it up because you do have some of those patients who are celibate for periods of time. We're talking about having a new partner, then out of the blue, they come in to see me for routine blood pressure follow-up. 'Oh, by the way, I have a new partner,' and then I'll broach that subject about testing and contraception. That type of thing. If it's a younger patient, I deliberately will broach the sex history." – MD
Relationship status	Sexual history screening was less of a priority during visits for patients in long-term relationships, with clinicians assuming they are not at risk or do not have any concerns.	"It's sometimes harder to remember to do it in patients who have long-term partners that I know of. It's not ideal to assume that they're monogamous and have no other relationships, but it sometimes kind of falls off the radar if you take care of like a couple who have been together for 10 years." – APRN
Culture and religion	Clinicians held beliefs about patients' cultures and religions that they perceived to be very conservative, that made it more difficult or prevented them from asking their patients sexual history questions.	"Certainly, culture comes into it. I would be very reluctant to ask certain women about sex because I know they're having sex with their husbands and they're not going out. Most Pakistani women, Indian women in their 40s, 50s, 60s, [...] so I think culture. Now, younger ones, I would, but certainly somebody who immigrated as an adult and is living still a fairly traditional life, it's less likely." – APRN "I would say a lot of the, I want to say Pakistani, the Muslim faith women that only come in, they will not come into the room without their spouse in there, that can make it difficult." – APRN
Adolescent age	Clinicians prioritized sexual history screening with adolescent and young adult patients but had to consider parents.	"They may have come in with the parents. I mean, I'm not going to ask them about sexual history in front of the parents, but even with the parents outside, sometimes I think they're a little bit hesitant because what I find is they're concerned that it may get back to the parents." – MD
Sexual and gender minorities	Clinicians noted the importance of sexual history screening for sexual and gender minority patients, with the recognition that this may be difficult for the patient.	"If they come in and it's fairly obvious they've made it known in their chart [that] they identify as transgender [sic] or a man who has sex with men, they might feel uncomfortable because their provider might ask them about sex at every visit. And that's not fair either. Right? I don't come in just because I'm a man who has sex with men. I might have diabetes; I might have hypertension. So, I think it's sort of like that. There's sort of the two extremes, and then there's a lot in the middle." – Clinical leader
Clinician gender	Clinicians who identified as women more often described using soft skills to navigate hesitation or discomfort from patients during sexual history screening, whereas men described accepting patients' initial reaction.	"I think also for [the patients], it's a little bit awkward for them to bring it up and I think it's a little bit easier if I am the one who initiates it. And if they're okay talking about it, fine, we talk about it, but then there's some who are a little bit hesitant about it. So I'll just kind of read into the patient and I go from there.[...] depending on how the conversation is going, then I'll probe a little bit more.[...] I just try to tell them up front whatever we discuss is between us." –MD, woman "If they don't want it, they say, 'No. Don't want it,' and if they do they say, 'Yeah,' and then we go ahead and do it. There are some patients that get a little bit kind of like, 'Why are you asking that? We don't need to talk about that.'" – APRN, man

APRN = advanced practice registered nurse; DO = doctor of osteopathic medicine; MD = medical doctor.

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the language they used to initiate SHS, focusing on comfort, rationale, and privacy. They also attempted to navigate SHS by assessing the patient's demeanor and identifying opportunities to ask the questions. In comparison, men more often reported that they accepted a patient's initial negative reaction, ranging from discomfort to refusal, and would not further pursue SHS in these cases. The only clinicians who stated they undertook SHS infrequently or not at all were men.

DISCUSSION

This study is the first to our knowledge to elucidate the relationship between the sociodemographics of adult patients and their primary care clinicians and the experiences of SHS in a multisite FQHC. Our findings demonstrate key sociodemographics associated with the likelihood of implementing SHS, building on both data from the health record and insight from the perspective of primary care clinicians and clinical leaders. Our findings underscore the importance of patient-clinician relationships and sociodemographics as they influence SHS, and show an interplay between social and contextual factors and the implementation of SHS as part of routine clinical care.

Our qualitative results were concordant with and elucidated the quantitative findings. In previous research, older patients have reported that clinicians stop asking about their sexual health as they age and that they are reluctant to bring up concerns without being asked.[25] During interviews, participants expressed discomfort discussing sexual health and assumptions about patients from conservative cultures, specifically noting Southeast Asian and Muslim patients. Much like older patients, Southeast Asian and Muslim patients report avoiding conversations about sexual health; however, providing culturally sensitive care is both achievable and critical to comprehensive health care.[26]

Contrary to existing literature,[6,10-12,14] gay and lesbian patients in this study had a higher likelihood of receiving SHS. This is perhaps due to clinicians' stated prioritization of such screening for SGMs. Although the Centers for Disease Control and Prevention has noted the importance of SHS for this population, their higher rates of SHS and other targeted screening may stem from biases, including the belief that all SGM patients engage in high-risk sexual behaviors.[4]

The likelihood of having sexual history documented in patients' health records was higher for cisgender women and for patients having cisgender women clinicians. This may reflect the influence of gender discussed during interviews. Clinicians were more comfortable or perceived more comfort from patients of the same gender. Additionally, women clinicians described using facilitating language and assessing patients to identify opportunities to ask uncomfortable questions. These strategies may explain why their patients were more likely to receive SHS. These results align with previous research demonstrating higher rates of SHS among cisgender women primary care clinicians and that women

report spending more time with patients, hold more favorable attitudes toward prevention, and feel comfortable conducting breast and cervical cancer screenings and SHS.[6,7,9,10,13,27]

Although a majority of primary care clinicians responded to the survey, the 35% who did not may have had different sociodemographics, which could impact both detected and undetected effects of clinician sociodemographics in this study. We do not believe that is likely, however, as our outcome, the proportion of patients with SHS documented in their health records, did not differ greatly between PCPs who participated (45%) and did not participate (42%). Patient-level data were restricted to those available in the EHR and we were not able to determine or define the sociodemographic or SHS questions posed. Additionally, the subset of data from the nested qualitative interviews originate from a larger data pool in which key staff were asked about facilitators of and barriers to the implementation of SHS and HIV services, and did not include questions specific to interpersonal relationships and stigma.

Our findings highlight an urgent need to further investigate patient and clinician factors as SHS facilitators or barriers to address insufficient use of this evidence-based practice in routine clinical care. This is of particular importance in FQHCs, given that patients using these centers are commonly at high risk of disease and represent populations who most often report experiencing detrimental bias in clinical settings.[28,29] By understanding the nuances of these factors, efforts can be made to address clinicians' comfort, knowledge, and biases; eliminate interpersonal barriers; and increase SHS implementation to prevent and reduce the transmission of STIs.

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Supplemental materials

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