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Perceived barriers and facilitators to integrating HIV prevention and treatment with cross- sex hormone therapy for transgender women in Lima, Peru

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Disclosure of potential conflicts of interest

Sari L. Reisner, ScD declares that he has no conflict of interest.

Amaya G. Perez-Brumer, MSc declares that she has no conflict of interest.

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Research involving human participants

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent

Informed consent was obtained from all individual participants included in the study.

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Abstract

Transgender women (TW) represent a vulnerable population at increased risk for HIV infection in Peru. A mixed-methods study with 48 TW and 19 healthcare professionals was conducted between January-February 2015 to explore barriers and facilitators to implementing a model of care that integrates HIV services with gender-affirmative medical care (i.e., hormone therapy) in Lima, Peru. Perceived acceptability of the integrated care model was high among TW and healthcare professionals alike. Barriers included stigma, lack of provider training or Peruvian guidelines regarding optimal TW care, and service delivery obstacles (e.g., legal documents, spatial placement of clinics, hours of operation). The hiring of TW staff was identified as a key facilitator for engagement in health care. Working in partnership with local TW and healthcare provider organizations is critical to overcoming existing barriers to successful implementation of an integrated HIV services and gender-affirmative medical care model for this key population in Peru.

Keywords

transgender women; HIV infection; models of care

INTRODUCTION

Transgender women (TW) are among the most HIV-affected populations globally and are in urgent need of tailored HIV prevention, testing, care, and treatment services [1, 2]. In Peru, prevalence estimates of HIV infection for TW range from 29.8% to 48.8% in Lima, the Peruvian capital and largest urban area on the Eastern Pacific coast outside of Los Angeles [3, 4]. TW experience unique HIV-related vulnerabilities [5], including structural factors such as social and economic marginalization [6, 7] which limit sexual partner pools and sexual network structures [1, 8], and increase transactional sexual partnerships, resulting in greater likelihood of condomless anal sex with partners who are more likely to be HIV-infected [9, 10]. These social vulnerabilities intersect with biological susceptibilities such as an increased per-act probability of HIV infection associated with sexual behaviors concordant with TW gender identity, i.e. condomless receptive anal sex [11].

Other biobehavioral risk factors for HIV infection among TW in Peru have been documented, including high prevalence of bacterial sexually transmitted infections (STIs) and HSV-2 co-infection [12–14], condomless receptive anal intercourse with HIV unknown serostatus partners [15, 16], and low rates of HIV testing and serostatus awareness [3, 17–19]. Gendered power dynamics, including the need for feminine gender affirmation or validation, coercive behaviors of male partners, and cultural linkages of TW with the “feminine” receptive role during intercourse often limit TW’s control over condom use

during sexual encounters [20–22]. Moreover, the internalization of societal stigma regarding transgender status (e.g., gender minority stress) creates a high prevalence of depression, substance use, and other adverse psychosocial health outcomes in TW, which increase HIV-related vulnerabilities [23–29]. Consequently, Peruvian TW constitute a key population for the evaluation of innovative interventions that address the continuum of HIV care across prevention, testing, linkage to care, and treatment services [30].

The HIV care continuum involves the steps of HIV medical care from testing to initial diagnosis to engagement in care to viral suppression [31]. Importantly, this model integrates treatment as prevention (TasP) [32] and maps the proportion of individuals engaged at each stage of the HIV continuum of care (e.g., HIV prevention, testing, treatment, retention, viral suppression). Although HIV infection and AIDS disproportionately burden TW, studies characterizing the HIV cascade of care among TW throughout Latin America, and especially in Peru, remain scarce [30].

Integration of HIV and gender-affirmative care has been recommended as a strategy to address the HIV epidemic in TW [33], and some studies have begun to show the utility of providing gender affirmative cross-sex feminizing hormone therapy together with antiretroviral therapy to help engage TW in the HIV care continuum [8, 34–36]. Research indicates that for many transgender people, hormonal or surgical medical interventions are key to aligning their outward physical gender presentation with their internal felt sense of their authentic gender [37]. In a study of TW living with HIV infection in the U.S., Sevelius and colleagues found that the integration of culturally competent gender-affirmative care, including cross-sex hormones, was an important facilitator to engaging TW in the entire HIV care continuum [34]. TW living with HIV infection prioritized gender transition-related care over HIV-related care, especially early in their gender transition process; and, if forced to choose due to resource limitations and/or fears of antiretroviral/hormone interaction, TW indicated they would pursue gender transition-related treatment and appointments over HIV care [34]. Gender affirmative care was found to be a key facilitator to engage TW in the HIV continuum, increase patient-provider trust, foster positive interaction, and support engagement and retention in HIV care [34].

Among TW in Peru, the high prevalence of cross-sex hormone use without physician prescription or medical supervision is well-documented [38–42]. In a 2009 survey, 87% of TW participants reported having ever used hormone therapy, though only 20% reported being prescribed hormones by a physician, and 66% reported obtaining hormones by a friend or acquaintance [3]. TW frequently rely on peers, creating informal, community-based systems to procure and administer hormone therapy. While this system is an example of resilience and resourcefulness in meeting TW community needs outside of existing institutional frameworks, the provision of oral and injectable hormone therapy without access to regulated hormone formulations, sterile injection equipment, expert advice on dosing and administration, or proper clinical follow-up and monitoring may also pose significant health risks for TW, including thromboembolic and infectious complications [37, 43]. Thus, linking cross-sex hormone therapy with HIV testing and treatment services through community-based healthcare systems may simultaneously address these two critical

needs for TW: Administering and monitoring cross-sex hormone therapy treatment while increasing uptake into the HIV continuum of care.

The aim of this formative study was to gain a more in-depth understanding of perceived barriers and facilitators to increasing the number of TW in Lima, Peru engaged in relevant HIV treatment and/or prevention activities, and to identify unmet healthcare needs pertaining to medically-assisted gender affirmation in TW communities. Using a series of focus group events with TW and healthcare professionals in Lima, Peru, we also sought to evaluate the potential acceptability of a healthcare service delivery model that integrates HIV prevention and treatment with gender-affirming transgender medical care (e.g., cross-sex hormone therapy).

METHODS

Study Design

Between January-February 2015, a mixed-methods formative study was conducted, consisting of seven focus group (FG) events: five with TW (N=48) and two with healthcare professionals (including medical providers and administrators, n=19). Each group lasted 90–120 minutes and comprised of written informed consent, a brief survey, and a semi-structured focus group discussion facilitated in Spanish. Participants received 20 Nuevos Soles (~US\$ 7). Institutional Review Boards at IMPACTA in Lima, Peru and The Fenway Institute at Fenway Health in Boston, Massachusetts approved the study.

The survey queried all participants about demographic characteristics (e.g., age, gender). TW were asked about sexual risk behaviors, experience with cross-sex hormones, gender affirmation and transition history, and experiences and perceptions receiving healthcare more generally. Healthcare professionals were asked questions regarding their experience, healthcare role (e.g., physician, nurse, administrators, etc.), and comfort caring for and/or interacting with TW.

Focus groups followed a semi-structured discussion format. Separate semi-structured focus group guides were developed for TW and healthcare professional groups. The TW guide had five topic areas and the healthcare professional focus group guide had four topic areas (see Table 1 for focus group organization schema). Both TW and healthcare professionals were queried about the perceived acceptability of intervention components integrating HIV prevention, testing, care, and treatment with cross-sex hormone therapy administration; and potential barriers to intervention success, including healthcare delivery system factors. Focus group guides were pilot-tested during one focus group with TW (n=13) and one with healthcare professionals (n=12). Pilot testing data were not included in this report.

Recruitment

Community Engagement: A Community Task Force was convened to guide the study, including advising and working with the study investigators and Project Manager to ensure meaningful engagement of members of the TW community. This included ensuring that all study procedures, instruments, and protocols were culturally competent and gender-affirming. The Community Task Force met one to two times per month and was comprised

of seven socially well-connected TW community leaders with experience engaging diverse local TW in Lima.

Recruitment of TW: Recruitment of TW participants was conducted in collaboration with Community Task Force members. Eligibility for inclusion was limited to individuals who were assigned a male sex at birth and who identified as male-to-female, TW, or as being on the trans feminine continuum (e.g., “trans,” “transgender,” “travesti”), were ages 18 years or older, and were of any self-reported HIV serostatus.

Given the expansive geographic area of Lima, a purposive sampling approach [44] was implemented that stratified Lima by region in order to maximize variety of perspectives and ensure broad geographic coverage in sampling. Focus groups with TW were held in the four regions Lima (*centro, cono norte, cono sur, cono este*) and Callao, the country’s main port that is adjacent to Lima. Together, these locations make up the urban center that is home to close to 10 million people and that account for approximately 73% of HIV infection cases reported nationwide between 1983 and 2007 [45].

Recruitment of Healthcare Professionals: Recruitment of healthcare professionals was accomplished through the extensive relationships the team had developed with clinics and hospitals that currently provide healthcare to TW in Peru. Eligibility was limited to healthcare professionals who were ages 18 years or older, were currently employed at a Peruvian Ministry of Health hospital or healthcare clinic known as HIV/STI Reference Centers (*CERITS* [*Centros de Referencia de ITS/SIDA*]), and reported at least three months of experience providing care or services to men who have sex with men (MSM) and/or TW. Healthcare professionals could be of any gender (male, female) or role (physician, nurse, counselor, psychologist, receptionist, or other administrative role). Sampling sought to capture an array of diverse healthcare settings and personnel. Focus groups with providers were conducted at specialized *CERITS* and at main public hospitals renowned for HIV infection and AIDS treatment and prevention services in Lima.

Procedures and Data Analysis

A team of two to three research staff was present at each focus group event. Following brief introductions, all potential participants were led through the informed consent process. Following consent, participants were given paper-pencil demographics surveys and asked to independently answer the questions. Staff members were spread out around the room to answer any questions during the surveys. Once collected, verbal consent was requested from all participants to start the audio recorder and focus group discussion commenced. Focus group discussions were co-facilitated by two study staff members: one cisgender female or male with extensive qualitative research experience and one transgender woman experienced in working with the TW community. A third member of study staff observed and took notes regarding the non-verbal group dynamics, conversation flow, and rapport between moderators and participants. Within 24 hours of each focus group, the co-facilitators and observer met to conduct brief rapid thematic summaries of perspectives heard at the focus group event. Focus group recruitment was stopped once thematic saturation had been reached, as recommended in qualitative research [46].

Focus group audio recordings were transcribed verbatim into Spanish, reviewed for errors and omissions, and cleaned to focus on the content of what was said. Transcripts were analyzed using an immersion crystallization approach to identify themes and relationships between themes [47]. Members of the research team independently reviewed the transcripts, focus group guides, and brief rapid thematic summaries that followed each of the focus group events. Each team member independently derived an initial set of themes. Team members then met to compare themes, discuss and reconcile any differences, and refine a set of codes and their definitions. A structured codebook was developed transforming the themes into codes. The coding scheme was applied to an initial transcript by two independent research staff. The research staff members reviewed their independent application of codes for comparison, and any discrepancies were resolved by a third staff member. Once reliability was established, the coding scheme was broadly applied to all transcripts by the two independent analysts using Dedoose Version 5.0.11 qualitative analysis software (2014, Los Angeles, CA: SocioCultural Research Consultants, LLC, www.dedoose.com). The constant comparison method was used to compare and re-review coded transcript data to ensure that coded data were as representative as possible of each individuals' and the groups' experience [48]. Data from the brief quantitative survey were entered into a study database in real-time, immediately following completion of each focus group event. Basic descriptive analyses were summarized in Stata 13 (College Station, Texas) to support qualitative themes.

RESULTS

Sample Demographics

TW participants (n=48): Half of all TW participants were born in Lima, Peru and 50.0% were between ages 20 to 29 years (range = 18 to 44 years; mean = 29.1 years, SD = 7.5). TW participants had a diverse array of living arrangements with 27.1% currently living alone, 16.7% with family members, 31.3% with a partner, and 14.6% with other TW. Almost half of participants (47.9%) self-identified as heterosexual, followed by 22.9% who identified as gay and 8.3% as bisexual.

Healthcare professional participants (n=19): Slightly less than half of healthcare professionals (42.1%) were between the ages of 27 to 35 years (range = 27 to 57 years; mean = 39.1 years, SD = 9.4); over half identified their assigned sex at birth as female (57.9%) and 42.1% as male. Among the 19 healthcare professionals, all but one provided information about their current gender identity and all healthcare professionals who reported this information identified as cisgender (i.e., non-transgender). The majority (84.2%) self-identified as heterosexual and 15.8% as gay. There was a wide representation of healthcare professionals: 15.8% were physicians, 26.3% nurses, 21.1% psychologists, 10.5% midwives, with the remaining 26.3% being pharmacists, receptionists, technologists, and receptionists, etc. The majority of healthcare professionals (42.1%) reported working in a public hospital, 15.8% in a private clinic or health center, 15.8% in an NGO, 10.5% in a community organization, 5.3% in an STI clinic, and 5.3% in a general hospital.

Table 2 presents demographic characteristics of TW and healthcare professional participants.

Feminizing Hormone Therapy

Discussions of hormone therapy were prominent in focus groups among both healthcare professional and TW participants. Three key themes emerged from these discussions: (1) the importance of hormone therapy for TW to affirm gender expression and presentation; (2) the relevance of hormone therapy to HIV prevention and care services; and (3) the need for providers to receive training(s) on hormone therapy administration, monitoring, and follow-up.

Feminizing hormones were commonly described as a crucial first step to an individual's affirmation of their authentic gender identity. Overall, 68.8% of TW participants reported having ever used cross-sex hormones. For example, one TW described: “[*Hormone use*] is for one to feel as they are, so that your body slowly becomes more and more woman, it is not to feel trans, one already feels that” (TW FG #4). The two most frequently reported hormone-administration modalities were contraceptive injections (20.8%) and contraceptive pills (14.6%), 4.2% combined contraceptive pills and injections, 2.1% used gel, and the remaining 2.1% combined contraceptive injections and antiandrogens. TW participants described using hormones bought at pharmacies or obtained through friends without involving health care professionals. Information regarding dosage or expectations for hormone use was variable, and hormone-related knowledge was communicated through word of mouth among TW peers and networks.

Narratives from healthcare professionals corroborated the importance of feminizing hormone therapy to gender affirmation for TW: “*The topic of hormones is very important, everyday it is touched upon. The trans population always has questions and seeks more information*” (Healthcare Professional FG #3). However, discussions with healthcare professionals centered on the concern that “*many of them [TW] self-medicate*” (Healthcare Professional FG #2) and that healthcare professionals were only consulted after TW had already been taking feminizing medications and if, or when, there was an adverse reaction to hormones.

Building on the importance of hormone therapy for TW in Peru, both TW and healthcare professional focus group narratives suggested the potential high acceptability of integrating cross-sex hormone therapy at healthcare facilities in generally, as well as to improve engagement of TW in HIV prevention, testing, and treatment efforts:

“Of course, if someone offers hormone treatment specifically for us, what chica travesti [trans girls] isn't going to go.” (TW FG #5)

“It [integration of feminizing cross-sex therapy] would be a good strategy not only to engage the population but also for education purposes, as we have mentioned previously [to address] social barriers.” (Healthcare Professional FG #2)

Although both healthcare professional and TW participants expressed interest in the integration of cross-sex hormone therapy with the HIV continuum of care, both groups noted the crucial need for education and training for successful implementation of such a model. While 63.1% of providers felt that they were trained in issues pertaining to transgender health in the context of delivering HIV services specifically, only 10.5% reported that they

felt they had the sufficient training to administer and routinely monitor hormone therapy for TW.

Both TW and healthcare professional groups viewed the integration of healthcare services as a vehicle to improve cultural competency and awareness among physicians and healthcare personnel about TW's health and medical concerns more broadly. Providers expressed interest in a range of educational topics related to the health and well-being of TW, including feminizing hormones, other body modification practices (e.g., silicone, gender confirmation/reassignment surgery), mental health services, and substance use and abuse. For example, one provider expressed that *"education need[s] to continue, both at the patient level and among professionals"* (Healthcare Professional FG #2). Additionally, healthcare professionals noted the need for specialized trainings such as training on hormone administration (e.g., dosage/regimens, monitoring, follow-up care, post-surgical complications) targeted towards clinicians with interest in and/or prior experience caring for TW patients. Healthcare professionals were open to in-person and online training modalities; they also emphasized the importance of hearing about the experiences of transgender people to humanize TW patients in order to improve the care they delivered.

Enacted Stigma, Clinical Mistreatment, and Medical Mistrust

TW reported high levels of stigma and discrimination by healthcare professionals and in healthcare settings. Half of TW surveyed (50.0%) expressed distrust or lack of confidence with healthcare professionals. Furthermore, in the brief surveys, 62.5% of TW reported that they avoided or postponed needed medical attention due to worries about being stigmatized by their healthcare provider specifically because of their transgender status. In focus groups, mistreatment in healthcare contexts was discussed as a significant barrier to TW accessing HIV and STI prevention, testing, and treatment services. For example, one TW participant described:

“...a [TW] friend of mine doesn't go to doctors... she has no interest in going. She feels as though in clinics TW are excluded and mistreated if they have the virus [HIV].” (TW FG #2)

Several TW recounted the multitude of ways TW are mistreated or denied services in medical settings. Accounts of mistreatment included TW being asked to wait longer compared to cisgender patients, not being provided the same detailed and competent care in medical examinations, and/or are not being scheduled for requested appointments. Beyond denial of care, 29.2% of TW participants reported that they needed medical care in the last three months that they were unable to procure. To this point, healthcare professionals also described that TW often delay seeking medical care, including when sick or injured. Healthcare professionals noted that TW's postponement of needed care and delay in health-seeking behaviors meant that once TW present for treatment, they have multiple issues that need to be addressed concurrently. As a result, healthcare professionals perceived that the multiple concomitant health concerns presented by TW patients significantly delay length of medical appointments (i.e., TW require longer appointment durations/times).

Several TW commented on the lack of long-term health-related resources for their community: *"Sometimes a lot of [medical] people come and offer assistance but at times*

they just disappear, so we do not receive anything. That is why a lot of girls...disappear when they [should] go to seek [services]. They do not want to come for a talk or a training, because they know it is just for the moment" (TW FG #2). The perceived fluctuation of services layered into general sentiments of medical mistrust were discussed as a barrier to engaging with HIV-related services and gender-affirmative medical care.

Perceived and Anticipated Stigma in Healthcare

TW noted that the range of healthcare professionals they interacted with, including administrators, security guards, nurses, doctors, and others, failed to recognize their gender presentation, expression, and identity as TW. Most commonly, healthcare professionals insisted on using TW's full legal name as it appeared on the national identity document, which TW are required to present to obtain clinical services and care. One participant described this:

"...you may feel comfortable because you are going [to get healthcare] as a woman, you feel like a woman, and you are going to meet up with other people there. But when you go as a woman and they call you Eduardo, you feel uncomfortable, you want to get out of there, then people begin to stare, whisper about you, and laugh at you. You feel bad." (TW FG #3)

Such experiences were not singular, but were sufficiently common to create a ripple effect. For example, TW reported that being "clocked" (i.e., publically identified or signaled for being transgender) in waiting areas often led them to have other negative experiences such as seeing and hearing snickering and residual mocking by the other patients waiting for appointments.

Likewise, healthcare professionals—primarily doctors and nurses—feared stigma from their healthcare professional peers by simply being open to, or agreeing to, care for TW. One doctor stated that he was afraid of stigma from others in his profession when he first started to provide HIV prevention services to a TW in Lima: "In my case, I have had a long time, a long time [in practice as a physician]. I was also scared of being stigmatized by my colleagues, that you're giving [hormone] treatment, but as I mentioned earlier, we have been witnesses of how the necessity [to provide medical gender affirmation] has increased" (Healthcare professional FG #2). Fear of stigma by others in the medical profession represented a barrier to providing TW services for providers.

Confidentiality and Visibility in Clinical Spaces

TW referenced confidentiality concerns associated with visibility in clinical spaces known to (or perceived to) provide HIV-related services. TW observed that HIV prevention and treatment services are often located in a designated, segregated area of healthcare centers away from other medical services. TW reported that entering a clinic or hospital space associated with HIV and AIDS care represented a barrier, fearing that it would "out" them as being at-risk for acquisition of, or of living with, HIV infection. As one TW stated:

"If you are going to take a [HIV] test, you always go to one side of the room and the others who are waiting are in a large room, and if they see you going there, they are commenting that you are sick." (TW FG #4)

TW felt HIV-related stigma regardless of their actual HIV serostatus. TW described how the normative societal belief is that all TW are HIV-infected, even if they themselves were HIV-uninfected. TW were concerned that HIV prevention and treatment services were easily recognizable to other patients in the healthcare center, a barrier that contributed to delaying or refusing to access HIV-related services. TW living with HIV described experiences of discrimination and mistreatment resulting from being HIV-infected in healthcare settings. As one TW described:

“The nurse gets up in a corner of a room calling since there, Mr. So-and-So please come take your medicine and everyone realizes it. So people are waiting to see who is, Mr. So-and-So please come to take your medicine, and then, people say ‘whew one more, he is going to die’.” (TW FG #4)

TW highlighted other privacy concerns in clinical spaces, including worries about receiving HIV test results in clinical rooms that are visible and/or audible from the waiting area. As one participant said: *“In the place ... where I took my [HIV] test I heard that I do not know if it was a doctor or nurse but she was giving the results to a girl and the door was open and she was speaking loudly about her result”* (TW FG #5). Lastly, TW noted that HIV-related services are sometimes spatially co-located with the treatment for other infectious diseases. Some TW were concerned they might be at risk of acquiring tuberculosis when going for an HIV test due to the co-location of infectious disease services, particularly in public hospitals.

Clinic Hours of Operation and Staffing Healthcare Facilities

Across all focus groups, TW expressed the need for hours of operation in healthcare services and clinics that fit within their schedules—meaning, healthcare services that were contextualized and responsive to their lived realities. For example: *“For the girls that work in the salons their hours are adaptable [to clinic hours], but many of us work on the street. Those are nocturnal hours, we are up until 2 or 3 am and to wake up at 6 or 7 am is very hard”* (TW FG #3). In addition to specific hours of daily operation, certain days of the week were noted to work better for TW than other days. Friday afternoons were not convenient for most TW. Other weekday afternoons and Saturday late morning to early afternoon were highlighted as more suitable times, particularly for TW engaged in sex work.

Healthcare professionals also commented that understanding the scheduling availability of TW increases the willingness and ability of the community to attend set appointments, as well as providers’ understanding of being flexible and nonjudgmental with TW patients:

“The main point is their schedule... when I talk to them about attending in their window period, some of them do not answer when I call them. It was very uncomfortable at the beginning.... Over time I talked to them and became their friend, I started to speak in a casual way and some of them asked me to not call them so early because they were sleeping. From that moment I started to analyze that some of them have a different schedule, maybe we get up in the mornings and punch in at work at a certain hour, and we have some social and work benefits, in contrast, they do not. And when we talk to them we can understand their condition, their availability, they are working in different jobs, could be an office work or in

the street, I do not know, but sometimes we do not understand their situation and we criticize when they arrive late.” (Healthcare Professional FG #3)

For TW, the non-responsive hours and days of operation of healthcare services were perceived to be indicators that providers within healthcare environments do not understand the TW community and their reality of social and economic marginalization, often including sex work as a primary occupation for many TW in Lima.

Regarding the type of personnel that should staff healthcare facilities, there were diverse opinions regarding preference (or not) for cisgender male or cisgender female providers; however, there was resounding agreement for the urgent need to employ transgender women as staff. One TW participant said: *“Where I used to go the receptionist was trans, she was the only person in the entire facility that treated me with kindness”* (TW FG #2). Another TW participant stated it would give them *“a bit more confidence [in the healthcare center] to see chicas travestis [trans girls] working there”* (TW FG #5). TW and healthcare professionals alike recognized that having TW as part of the healthcare team could motivate TW to go to the establishment, protect against discrimination and facilitate community trust, and serve to further educational efforts in healthcare settings to address the needs of the TW community.

Community-Based Peer-Delivered Healthcare and Support

Both healthcare professional and TW focus groups identified peer health promoters as an essential resource for the TW community. Recognizing the strong community bonds among TW, healthcare professionals noted that several previous HIV prevention interventions had been successful primarily due to the incorporation of transgender peer health promoters. For example, one healthcare professional stated:

“...among trans woman they primarily counsel themselves. Telling each other that this hormone worked for me and then their friend will buy it and apply it similarly. Several of our [TW] patients are on HAART [antiretroviral medications] and though some come to us for consults, they mostly refer to their peer networks for advice.” (Healthcare Professional FG #2)

Healthcare professionals and TW participants noted that currently, few healthcare facilities employ TW as health promoters or health navigators. The most common suggestion across focus groups with TW and healthcare professionals was to incorporate more TW as peer health navigators and promoters in healthcare clinics. Nearly 83.4% of TW respondents noted that the transgender peer health promoters would be a valuable resource for them when navigating healthcare settings and accessing health services. While several TW participants noted concerns about TW community members working in clinics and potential breaches of confidentiality, they nevertheless wanted TW peer health promoters as part of systems for their healthcare delivery.

Participants also discussed that gender-affirmative care did not exist within the healthcare systems they accessed. Participants described the need for providers to recognize and respect their gender identity: *“I believe the doctor needs to be open-minded; whether he’s a gay or [straight] man, what do I know? And [he should] try to understand us for who we are”* (TW

FG #2). Additionally, participants suggested that active recognition of TW concerns and needs (e.g., access to hormone therapy) beyond HIV testing and STI screening are important to depathologizing gender diversity: “*They don’t focus directly on the reason we came, or only the trans, rather they generalize everything, they don’t treat us like we want [to be treated], they focus on the fact that we are trans and nothing else.*” (TW FG #2) TW participants repeatedly highlighted that gender-affirmative care was an urgent and unmet need in the TW community.

DISCUSSION

This mixed-methods study with TW and healthcare professionals in Peru found high levels of perceived acceptability for a holistic model of service delivery that integrates HIV prevention, testing, and treatment services with gender-affirming transgender medical care. Participants across focus groups reported the importance of feminizing hormone therapy in the lives of Peruvian TW, aligned with the global literature suggesting that body modification is considered by many TW to be an important step in aligning their physical presentation and outward expression with their internally experienced gender identity [49, 50]. Participants also reported high frequency of non-prescribed hormone use that is not appropriately monitored, consistent with previous studies [39, 40, 51]. In addition to the need for provision of culturally appropriate services along the HIV continuum of care (e.g., HIV prevention and testing, linkage to HIV treatment and care) for TW, this study highlights the critical need for and access to safe gender affirmative cross-sex hormone therapy for TW in Peru. These findings are consistent with prior research across a variety of geographic contexts and settings suggesting the high acceptability of comprehensive HIV prevention and care services for TW that include access to and monitoring of hormone therapy for feminization [11, 34, 52].

This study identified several key facilitators and barriers to integrating HIV services and gender affirmative cross-sex hormone therapy for TW in Peru. The first and perhaps most essential facilitator identified were the high levels of willingness to integrate HIV services with hormone therapy across focus group narratives with both TW and providers. Given the high rates of HIV infection and low rates of medically supervised hormone use, these results suggest that this critical need for integrated or co-delivered services for TW is a realistic and highly acceptable approach for future public health endeavors [53]. However, providers identified that lack of sufficient training or guidelines were barriers to integrating HIV services and gender-affirmative medical care, highlighting the need for training. Healthcare providers asserted the need for training or guidelines instructing them how to properly and safely administer and monitor hormone therapy to provide such care for TW. This finding highlights a lack of knowledge about and awareness of (or access to) international guidelines and standards of care for transgender people, such as those provided by the World Professional Association for Transgender Health (WPATH) Standards of Care [37]. Cultural competency trainings for healthcare professionals were core components identified to facilitate integration of co-located services in a Peruvian setting, particularly trainings in transgender medicine and hormone therapy administration and monitoring. Healthcare professionals endorsed in-person and online training modalities; didactic trainings and case study exercises were suggested, as were face-to-face interactions with TW patients to allow

providers to become more comfortable with the community. Healthcare professionals suggested trainings be focused toward clinicians with interest in and/or prior experience caring for TW patients, as they felt these would likely be the providers seeing most TW given the nature of “word of mouth” referrals for healthcare linkages within TW communities.

The second crucial facilitator was engagement and involvement of TW in healthcare service provision, delivery, and linkages. TW noted that the majority of information they received regarding their health and well-being, including about feminizing hormones, risk reduction strategies, and HIV prevention, was from each other. This is consistent with samples in other geographic regions, for example, a U.S. New York-based sample of TW found that over half of participants cited their friends as a source of information about hormone usage or a source for hormone syringe acquisition [51]. Social support for TW via incorporation of TW community members into HIV service delivery as health promoters or as peer health navigators emerged as an important intervention component that both TW and providers believed would facilitate access and uptake of HIV and gender-affirmative services for TW. Prior research suggests the efficacy of peer health navigation to improve the HIV cascade of care in vulnerable populations [54, 55]. TW and healthcare professional participants highlighted the dense social networks within TW communities as a strategic entry point to spread educational messages and linkage to services within TW communities. Peer health promoters were seen as a vital aspect of any health-related programming and services seeking to engage Peruvian TW.

With increasing frequency, engaging transgender communities in public health efforts is recommended [56], including working “with” not “on” transgender communities [57]. However, evaluation of the practice of grass-roots TW inclusion, involvement, and engagement in public health efforts remains underdeveloped. Perceived acceptability by TW of TW involvement in public health efforts is not simple; data are mixed. For example, in a U.S.-based sample of HIV-infected TW, participants stated that they would not want TW incorporated as clinical staff during the initial HIV testing stage due to fears of confidentiality; however, they wanted to see TW incorporated as clinic staff during later stages of HIV continuum (e.g., treatment and retention) [34]. In the current Peruvian sample, several TW participants did note concerns about TW community members working in clinics and potential breaches of confidentiality; nevertheless, they wanted TW incorporated as peer health promoters across the entire HIV continuum of care. Training in confidentiality, privacy, managing community dynamics, and setting boundaries are recommended for TW peer health navigators; this will increase the capacity of TW communities to promote health and change within community contexts. Future implementation science research would benefit from designing evaluations that assess TW community engagement, including how to best evaluate acceptability of community involvement by community members.

While both TW and healthcare professionals agreed that integrating cross-sex hormone therapy with HIV services would address an important unmet need for TW in Peru, participants highlighted several barriers to implementing such an intervention model with co-delivery of services, particularly the role of intra- and inter-personal stigma influencing

healthcare services received and provided to TW. Consistent with prior research [58, 59], clinical mistreatment and medical mistrust emerged as core barriers for TW. TW reported avoiding or postponing medical care due to prior or ongoing enacted stigma, discrimination, or negative experiences of mistreatment within healthcare settings. The perspectives of healthcare professionals triangulated the narratives of avoidance or postponement of care among TW. Providers reported that TW patients often delay seeking needed healthcare until multiple or severe medical issues have already presented. As a result, TW were described as “difficult patients” who needed longer visits and more time with providers to comprehensively address their health concerns.

TW cited not only enacted stigma but also perceived and anticipated stigma as barriers to implementing a model of integrated service delivery, corroborating prior work in transgender health [60]. TW reported perceiving stigma when accessing healthcare services due to being commonly misgendered and referred to by male pronouns, or called by their full legal name rather than their female name. The structural and contextual barriers within clinical settings that emerged in focus group discussions—e.g., the spatial location of HIV clinics and services within healthcare centers (e.g., in infectious disease divisions) and the hours of operation of clinics which were often not aligned with TW’s lived experiences and needs—were perceived by TW to be structural forms of stigma. Further, TW reported reluctance to access HIV services (regardless of their HIV serostatus) due to the stigma associated with a perceived HIV-positive status. It has been theorized that the HIV epidemic in Peru is perpetuated by layers of HIV-related stigma and gender inequality such that gender norms deeply ingrained within Peruvian-specific socio-cultural contexts create differential power imbalances [61]. The narratives of TW in this study who articulated the intersection of stigmas related to the socially marginalized statuses of transgender woman and living with HIV supported such theorized power imbalances.

Adding to the existing literature describing the multiple intersecting experiences of stigma and discrimination faced by transgender individuals in healthcare settings [5], this study further documents and reports the stigma felt and anticipated by healthcare providers when providing services to TW—what we can refer to as *vicarious stigma* [62]. Healthcare professionals who had experience providing services to TW described facing stigma from colleagues, as did healthcare professionals who thought about issues of acceptability for future provision of care to TW. Whether such vicarious stigma is experienced in the form of discrimination or mistreatment by colleagues, or is simply perceived or anticipated by providers, provider cultural competency trainings should include content on stigma-management. Supporting and empowering healthcare professionals in the provision of care to TW, an underserved, highly marginalized, and stigmatized patient population in Peru, means giving them the appropriate tools to manage the potential vicarious stigma that may result when working with this community.

Study findings necessitate interpretation alongside several limitations. First, the research team acknowledges that the HIV continuum of care framework is a concept largely utilized by the Global North. Although healthcare professionals were aware of the individual steps within the cascade (i.e., HIV prevention, testing, treatment, retention, viral suppression) they were less familiar with the overall concept which combines these discrete stages into the

larger cascade to conceptualize the field of HIV. Second, this study utilized purposive sampling to recruit the samples of TW and healthcare professionals; thus, the generalizability of findings may be limited and not fully representative of the population of TW or healthcare professionals in Peru.

Limitations notwithstanding, the use of focus groups with both TW and healthcare providers allowed triangulation of data collected, permitting this study to gain a more comprehensive view—from potential TW patients and providers who serve them — of the components necessary to successfully implement gender-affirmative medical care with an eye toward sustainability. Study results highlight numerous barriers to care that TW experience, including negative experiences of and/or perceptions of healthcare providers. Future research should aim to identify factors that foster positive and trusting relationships between TW and their healthcare providers [59]. The detailed descriptions of perceived barriers and facilitators to an integrated model of HIV-services and gender-affirming hormones from this study can inform the implementation of future culturally-tailored and holistic interventions to improve uptake of the HIV cascade of care among TW in Peru. Furthermore, this formative research highlights the importance of hormone therapy to Peruvian TW and the willingness of healthcare providers and TW to incorporate feminizing hormones into existing HIV services. Integrating feminizing hormone therapy alongside HIV prevention, care, and treatment will address an important unmet health need for TW in Peru.

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Table 1

Description and Organization of Focus Group Guide Topics.

Participants	Topics Discussed
Transgender Women:	<p>Experiences accessing HIV prevention services and engagement in HIV primary care, including facilitators and barriers to medical access</p> <p>Attitudes toward a peer navigation system to increase engagement in HIV care</p> <p>Gender-affirmative procedures (experiences -personal or among the community- with previous and current use of hormone therapy)</p> <p>Assessment of transgender women healthcare needs related to HIV care and gender-affirmation</p> <p>Attitudes toward having a dedicated facility to receive gender-affirmative care</p>
Healthcare Providers and Administrators:	<p>Knowledge of and experience providing feminization hormone therapy</p> <p>Feasibility and acceptability of providing cross-hormone therapy with the existing public health system</p> <p>Acceptability and willingness to provide cross-sex hormone therapy</p> <p>Perceptions of stigma and discrimination resulting from providing hormone therapy to transgender women</p>

Table 2

Descriptive Characteristics of Healthcare Professional (n=19) Focus Group Participants in Lima, Peru.

	N / Mean	% / SD
Age in Years	39.1	9.4
Sex assigned at birth		
Female	11	57.9
Male	8	42.1
Current Sexual Orientation		
Heterosexual	16	84.2
Gay	3	15.8
Has provider ever prescribed hormone therapy to transgender patients?		
No	2	10.5
Yes	1	5.3
No Response	16	84.2

Table 3

Descriptive Characteristics of Transgender Women (n=48) Focus Group Participants in Lima, Peru.

	N / Mean	% / SD
Age	29.1	7.5
Current Gender Identity		
Female/Woman	21	43.8
Male/Man	1	2.1
Transgender man *	3	6.3
Transgender woman	22	45.8
Current Sexual Orientation		
Heterosexual	23	47.9
Bisexual	4	8.3
Gay	11	22.9
Lesbian	1	2.1
Trans *	4	10.5
Means of Income in past 3 Months		
Own individual or group business (salon, restaurant, commerce, other service)	6	12.5
Sex in exchange for money, drugs, food, accommodation etc.	29	60.4
Formal or informal employment (work for others, not sex work.)	7	14.6
Spouse/partner	2	4.2
Has participant ever used feminizing hormone therapy?		
No	14	29.2
Yes	33	68.8
What is participant's HIV status?		
Negative	23	47.9
Positive	7	14.6
Don't Know	14	29.2
No Response	4	8.3

* The question “What is your current gender identity?” allowed a write-in response (rather than multiple choice). Three participants responded that they identified as “transgender man”, which would traditionally indicate a female-to-male trans masculine identity. However, based on the knowledge that all participants in the focus groups were recruited and screened in due to their self-identification as a transgender woman (i.e. male-to-female, trans feminine spectrum), the study team interprets “transgender man” to indicate that the participant identifies as someone who was assigned male at birth and is transgender.)