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Perceived Need and Acceptability of a Community-Based Peer Navigator Model to Engage Key Populations in HIV Care in Tijuana, Mexico

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Abstract

Introduction: Prior work found <4% of key populations living with HIV (KPLWH) in Tijuana, Mexico, were on antiretroviral therapy (ART). The goal of this pilot study was to examine community stakeholders' perceived need and acceptability of a peer-navigator program to improve ART coverage. **Methods:** We held a community forum and measured perspectives of key stakeholders in local organizations that serve KPLWH using online surveys, and in-depth interviews (with select key informants). **Results:** Univariate descriptive statistics and emergent thematic analysis illustrated that there was general consensus that the program could improve ART coverage for KPLWH by helping to overcome geographic, transportation, and sociostructural barriers to HIV care. Police harassment, mobility, and non-HIV comorbidities were identified as challenges the program would need to navigate. **Conclusions:** Community stakeholders expressed perceived need and acceptability of a program to improve HIV care outcomes among KPLWH in Tijuana. The program should address the challenges identified by community stakeholders.

Keywords

HIV/AIDS, HIV care, key populations, implementation science, community stakeholders, stigma

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Introduction

Worldwide, persons who inject drugs (PWID), female sex workers (FSW), men who have sex with men (MSM), and transgender women (TGW) are disproportionately affected by HIV epidemics.[1–4] These key populations experience stigma, marginalization, and criminalization that not only increase risks of HIV and other poor health outcomes but also pose significant barriers to traditional systems of care.[5–7] Such is the case in Tijuana, Mexico, where an epidemiological analysis of 6 different studies conducted among key populations in Tijuana found that only 11.0% were ever linked to HIV care, and only 3.7% were currently receiving antiretroviral therapy (ART).[8] Efforts to increase linkage to HIV care, ART access and adherence are clearly needed for members of key populations living with HIV in Tijuana.

Across Mexico, HIV care is available in 140 specialized units in *Servicios de Atención Integral Hospitalaria* (Comprehensive Hospital Care Services) and *Centros Ambulatorios para la Prevención y Atención en SIDA e ITS* (CAPASITS; Outpatient Centers for Prevention and Care of HIV and STIs), but is centralized and delivered at the CAPASITS clinics.[9] As is the case in most Mexican cities, there is only one CAPASITS clinic in Tijuana, and it is located ~25 km (15 miles) outside the *Zona Norte.* The *Zona Norte* is a neighborhood located right along the US border, known for Tijuana's red-light district and where a large population of PWID, FSW, MSM, and TGW in Tijuana work, congregate, and/or reside.[10] Thus, the key populations in Tijuana most at risk for and living with HIV are

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What Do We Already Know about This Topic?

Sociostructural barriers to HIV treatment, such as stigma, discrimination, fear of criminalization (eg, due to injection drug use), and low levels of antiretroviral therapy literacy, exist worldwide among key populations; therefore, the World Health Organization (WHO) recommends tailored, or differentiated approaches to increase engagement of key populations into the HIV care continuum.

How Does Your Research Contribute to the Field?

We propose an intervention program called, *Conexiones Saludables* (Healthy Connections), aimed at increasing engagement of key populations into the HIV care continuum in Tijuana, Mexico. We examined the perceived need and acceptability of the program among community stakeholders serving key populations in Tijuana.

What Are Your Research's Implications toward Theory, Practice, or Policy?

The integration of community stakeholders into public health research in this setting helped identify unmet needs that need to be addressed to achieve maximum gains in improving HIV care outcomes among persons who inject drugs, female sex workers, men who have sex with men, and transgender women in Tijuana, Mexico.

placed at a disadvantage given the distant location from CAPASITS. Geographic and transportation related barriers are often cited as a barrier to health care, including HIV care.[11,12]

Sociostructural barriers to HIV care that might exist for members of key populations in Tijuana include stigma, discrimination, fear of criminalization (eg, due to injection drug use), and low levels of ART literacy.[13–16] In light of such barriers, the World Health Organization (WHO) recommends tailored or differentiated approaches to increase engagement of key populations into the HIV care continuum.[7,17] These approaches include the implementation of community-based services administered, driven, or "navigated" by peers.[7,18] A peer navigation approach involves the use of lay health workers, called peer navigators (PNs), trained to support specific populations through their medical self-care. Peer navigators may share cultural backgrounds, history of risk behaviors, and/or the same medical condition with their clients. The PN works directly with clients to help them access and link to care, assist with patient–provider communication, and offer logistical and social support to maintain retention in care and medication adherence. Peers play different roles to help clients overcome sociostructural barriers to care (eg, providing health education and social support, referrals to ancillary services, systems of care navigation).[19,20]

Recognizing the need for HIV care and potential barriers key populations in Tijuana likely face, we proposed a program called *Conexiones Saludables* (Healthy Connections; "*Conexiones"* for short) to community stakeholders in the city. The main objective of *Conexiones* is to help strengthen engagement across the HIV care continuum among members of key populations, particularly PWID and FSW for whom fewer local HIV support services had been developed. Following WHO recommendations for a differentiated approach,[7,17] *Conexiones* would use PNs operating within a local community-based organization (CBO). The CBO, called *PrevenCasa*, has been offering HIV and harm reduction services (eg, needle exchange, HIV/sexually transmitted infection [STI] testing, psychological support, basic medical care) to the *Zona Norte* community since 2007.[21] In an effort to follow steps toward intervention development and evaluation, the primary goal of the current pilot study was to examine the perceived need and acceptability of the *Conexiones* program from the perspective of community stakeholders.

Methods

Participants and Procedures

In June 2015, 1 representative from 8 different CBOs serving key populations in Tijuana were invited to a community forum (total n = 8). There, a general overview of the *Conexiones* program and its objectives were presented (Table 1), followed by attendees' discussion about the perceived need for and acceptability of the proposed program. From forum attendees, we collected closed- and open-ended survey responses (n = 8) from July 2015 to April 2016 and in-depth key informant (KI; n = 3) interviews in June 2016.

Community-based organizations. Table 2 summarizes the characteristics of the participating CBOs. In total, 6 CBOs serve the Lesbian/Gay/Bisexual/Transgender community. For example, CBOs 1 and 7 serve MSM and TGW, whereas CBO 4 provides support to TGW specifically. Four CBOs serve individuals with substance use disorders, including PWID. Three CBOs also serve individuals from low-income or marginalized populations, including migrants. In terms of services provided, 5 CBOs provide HIV testing and counseling, 2 provide free basic medical consultations, and 2 provide psychological counseling. Two provide drug treatment services, and 1 of which included methadone detoxification and maintenance. One CBO provides linkage to HIV care support services.

Key informants. Three KIs completed an in-depth interview: the first was 1 of only 3 physicians working at Tijuana's federally-funded HIV clinic (*CAPASITS*), the second was a clinician who provided satellite HIV care through a telemedicine program that was developed and operated by a local CBO (in collaboration with *CAPASITS*),[10] and the third was the Assistant Director of *PrevenCasa*, the CBO where the *Conexiones* program was proposed to be housed.

Table 1. Summary of the Information Presented at a Forum of Community Stakeholders Regarding the Proposed Conexiones Saludables Program.

Domain	Summary of Information Provided
Program objectives	Use peer navigators to: (1) identify PLWH not engaged in HIV care who are members of key populations (ie, PWID, FSW); (2) connect (link or reengage) these patients to HIV care; and (3) provide targeted support to achieve and maintain viral suppression (eg, build patient capacity for long-term ART adherence).
Parties involved	Three peer navigators were described as being the acting liaisons between: (1) PLWH not engaged in HIV care who are members of key populations (ie, PWID, FSW); (2) *PrevenCasa*, other local CBOs serving key populations; and (3) *CAPASITS* HIV care providers.
Basic responsibilities of peer navigators	Support HIV treatment and care and health systems navigation; support non-HIV health needs, promote self-efficacy.
Potential local and national impact	The program should increase the number of PWID and FSW living with HIV who are engaged in the HIV care continuum. The program may be reproducible in other areas to support local and national efforts to link and retain key populations in HIV care.

Abbreviations: ART, antiretroviral therapy; CAPASITS: Outpatient Centers for Prevention and Care of HIV and STIs in Mexico; CBO, community-based organization; FSW, female sex workers; PLWH, people living with HIV; PWID, people who inject drugs; .

Measures

Community-based organizations survey. After the forum, each CBO representative was asked to complete a brief online survey that included both open-ended and Likert-type questions assessing their perceptions of *Conexiones*. We assessed perceived need and potential utility of the program using items that include "*Please rate the need for a program like Conexiones in Tijuana, Mexico, in order to improve HIV healthcare*;" (1 = not needed, 5 = extremely needed); "*Please rate the likelihood that you would refer HIV patients to Conexiones*" (1 = not likely at all, 5 = extremely likely); and "*How easy or difficult do you think it will be for your clients to connect with peer navigators from Conexiones*" (1 = very difficult, 5 = very easy). We also assessed perceptions of the program's potential impact on community health using items that include: "*How useful do you think the program is for improving HIV healthcare in Tijuana?*" (1 = not useful at all, 5 = extremely useful).

At the end of the survey, participants were asked 2 open-ended questions: (1) "Please describe any challenges you foresee in implementing Conexiones in Tijuana;" and (2) "Please describe other services that you feel are needed to improve HIV health care in Tijuana, Mexico, that are not provided by Conexiones or other existing organizations in Tijuana." Similar to questions from the in-person forum.

Key informant interviews. A trained interviewer conducted the KI interviews in Spanish using a semi-structured interview guide to facilitate the discussion surrounding the *Conexiones* program. The interview explored 3 main areas: HIV treatment needs of the target communities, capacity needs for program implementation, and ideas about how else the program might better serve the target populations. Interviews were audio-recorded, transcribed, and translated into English. For the purpose of the current study, we focused on identifying themes across KI statements regarding the perceived needs and challenges of serving these target populations, and how the proposed program was perceived to meet such needs.

Ethical Approval and Informed Consent

All study procedures had binational Institutional Review Board approval by the Human Research Protections Program at the University of California, San Diego, and the Ethics Committee at University of Xochicalco Medical School in Tijuana. All procedures were conducted in accordance with the Helsinki Declaration. Verbal consent was obtained prior to all study protocol activities.

Results

Community-Based Organizations Survey

We conducted univariate, descriptive analysis of the CBO survey responses (ie, no bivariate, inferential statistical tests were conducted). Table 3 summarizes responses to the online survey from the 8 CBOs. On average, there was a high-level of agreement (defined as mean scores at the high-end of the response scale) across the CBOs that such a program was needed in Tijuana (mean = 4.50, standard deviation [SD]: = 0.50) and in Mexico (mean = 4.38, SD = 0.48). There was also a high-level of agreement that the program had the potential to positively impact the community. For example, we observed high mean ratings of perceptions that the program could improve HIV care in Tijuana (mean = 4.25, SD = 0.66), and the health of their clients (mean = 4.25, SD = 0.66). Additionally, there was a high-level of agreement that the program would complement their CBO's existing services (mean = 4.25, SD = 0.66). Relative to the other items, the item that scored poorest among the CBOs had to do with perceived access to the program's PNs. On average, there was less agreement that clients from their CBO could easily connect with the PNs (mean = 3.75, SD = 1.09).

We examined responses to the open-ended survey items and notes on the community forum discussions regarding the perceived challenges to implementing the program in Tijuana. Below, we highlight some of the main responses:

Highly mobile population. Responses reflected anticipated challenges in locating clients to follow-up on their HIV treatment through the proposed program, because clients frequently relocate within the city or to other states within Mexico.

Table 2. Characteristics of Participating Community-Based Organizations.[a]

Agency	Populations Served	Services Provided
CBO 1	MSM, PWID, SW, TGW	Rapid HIV Testing and Counseling Linkage to Care Support
CBO 2	LGBT	Rapid HIV testing and counseling
CBO 3[b]	Migrants, PWID, SW, MSM Low-SES *Zona Norte* residents	Free basic medical consultations Rapid HIV and STI testing and Counseling HIV prevention and harm reduction services
CBO 4	TGW	Advocacy and social support
CBO 5	Substance dependent LGBT and marginalized populations	Residential drug treatment (12-step model) Psychological counseling HIV testing and counseling
CBO 6	Substance-dependent populations	Addiction treatment services Methadone detoxification and maintenance Psychological counseling
CBO 7	MSM, TGW	Rapid HIV testing and counseling
CBO 8	Low-income and marginalized populations	Free basic medical consultations HIV prevention services and health education Sexual and reproductive rights advocacy

Abbreviations: CBO, community-based organization; LGBT, lesbian, gay, bisexual, transgender; MSM, men who have sex with men; PWID, people who inject drugs; STI, sexually transmitted infection; SW, sex workers; TGW, transgender women; SES, socioeconomic status.
[a]N = 8.
[b]Community-based organization where the proposed community-based peer navigation model was to be piloted (*PrevenCasa*).

Police harassment. The issue of police harassment dominated a large part of the community forum. Concerns were raised about how a PN program would manage potential police interference (eg, confiscation or disposal of ART by police who assume they are illicit drugs, clients having to cross through areas in *Zona Norte* where police set up raids or check-points in order to access HIV care, prevention, or drug treatment; the potential for the PNs to draw police attention to their clients or for the PNs themselves to be perceived by the police to be PWID or FSW and be harassed vis-a-vis street outreach activities).

Improving HIV care. Also discussed was a need for additional services to improve HIV care in Tijuana that are not addressed by *Conexiones,* including: expanding reach to other vulnerable populations engaged in sex work and/or injection drug use, like MSM and TGW; improving access, support, and adherence to existing community-based services for comorbid conditions (ie, mental health and methadone maintenance services, and Hepatitis C treatment); managing the high mortality rate for persons living with HIV (PLWH) in the *Zona Norte* (ie, supporting staff in coping with the loss of clients, establishing an office/service that is responsible for contacting relatives and supporting with funeral services); and increasing access to health insurance. For the last, the community described how multiple barriers exist for clients to enroll in *Seguro Popular,* a universal (safety net) health-care system,[22] and access HIV care. These issues reflected challenges locating government-issued documents to apply for insurance (eg, birth certificates) and limited knowledge of how to gain access to this system for undocumented and migrant persons who are not Mexican citizens.

Key Informant Interviews

The following themes emerged across the 3 KIs regarding the perceived needs of the target population and the ability of *Conexiones* to meet those needs: logistical challenges to accessing HIV care in Tijuana, need to improve patient tracking and monitoring, and the need to address social factors faced by vulnerable populations, including stigma and lack of social support. The KIs also provided feedback about the program's community-based approach, and the program's PN approach.

Logistical challenges to accessing HIV care. The KIs described challenges regarding access to the HIV care system in Tijuana and in Mexico for vulnerable populations. HIV care in Mexico is centralized and provided through outpatient CAPASITS clinics throughout the country. With only 1 CAPASITS clinic in Tijuana located ~25 km from *Zona Norte*, KIs viewed the lack of resources for travel among vulnerable populations (PWID, MSM, FSW) as the primary barrier to providing HIV care. The centralization of HIV services at CAPASITS was another noted barrier, as the ability to provide HIV care or coordinated services to vulnerable populations was seen as nonexistent outside of the CAPASITS clinic. Key informants identified a need for cross-coordination and collaboration between CBOs to assist members of vulnerable populations with their HIV care.

Need to improve patient tracking and monitoring. The KIs described how apart from the major problem that many patients become lost to follow-up (LTF), the current HIV surveillance system for CAPASITS clinics in Mexico (*Sistema de Administración, Logística, y Vigilancia de ARV [SALVAR]*; Administration, Logistics, and Surveillance System of Antiretrovirals)

Table 3. Perceptions of a Community-Based Peer Navigation Approach.[a]

Community-Based Perceptions	Mean	(SD)
Perceived need and potential utility of the program		
A program like this is needed to improve HIV care in Tijuana	4.50	(0.50)
A program like this is needed to improve HIV care in Mexico	4.38	(0.48)
Our organization would very likely refer our clients to a program like this	4.50	(0.50)
Clients from our organization could easily connect with the peer navigators	3.75	(1.09)
Potential impact on community health		
This program could improve HIV care in Tijuana	4.25	(0.66)
This program would be effective in improving its clients' health	4.25	(0.66)
This program would be effective in improving the lives of PWID in Tijuana	4.25	(0.83)
This program would be effective in improving the lives of FSW in Tijuana	4.25	(0.83)
This program could help reduce HIV incidence in Tijuana	4.13	(0.78)
That program could help improve the HIV health system in Tijuana	4.25	(0.66)
Potential impact on existing services		
This program complements the services provided by our organization	4.25	(0.66)
This program would benefit from the services provided by our organization	4.25	(0.66)
This program would be redundant with the services provided by our organization	2.63	(1.22)
This program would hinder the services provided by our organization	1.25	(0.66)
The staff at our organization could benefit from cross-training in this program	4.13	(0.60)

Abbreviations: FSW, female sex workers; PWID, people who inject drugs; SD, standard deviation.

[a] All statements were asked in a value-neutral manner but have been rephrased to reflect the positive agreement with the statement based on participants' responses to a 5-point Likert-type scale (1 = low agreement, 5 = high agreement).

made it virtually impossible to identify and re-engage those who are LTF in HIV care. Administration, Logistics, and Surveillance System of Antiretrovirals (*SALVAR*) was viewed as deficient, failing to capture detailed information that could help locate patients. They recommended updating the system to systematically capture this type of information. The KI also described how the *SALVAR* system unsubscribes patients when they miss too many appointments or go too long without an appointment. This made it nearly impossible to track patients LTF with *SALVAR*, meaning CBOs were the most practical tool for locating patients LTF, but CBOs lacked the resources (money, staff) needed to coordinated efforts across CBOs.

Need to address factors unique to members of vulnerable populations. Additionally, KIs emphasized the need to address a range of social factors affecting the target populations, namely culturally competent care, stigma, and lack of social support.

Cultural Competency. Key informants described how the training of physicians in Mexico left them with limited understanding of how to meet the medical needs of vulnerable populations with competing priorities, resulting in misperceptions that PWID or FSWs were not serious about their HIV care if they missed appointments or were nonadherent to the physician's instructions. Key informants emphasized that it was essential to adopt a harm reduction approach to HIV care, recognizing that members of these vulnerable populations perceive more important needs than the need to treat their HIV. For example, PWID may prioritize their drug use first, followed by food, then medicine; whereas FSW often need to prioritize maximizing work hours or maintain their job security which can be compromised by attending HIV care appointments. Consequently, KIs described a need for an approach where patients felt they could be open with their providers about their lives and priorities, and where providers could take such issues into consideration when providing care.

Stigma. Key informants described how PLWH in Mexico face a great deal of stigma and discrimination, from family members, employers, as well as within the health-care system, and that stigma poses a main barrier to HIV care. They described how institutional stigma exists among some health-care providers (outside of *CAPASITS*) who, despite their medical knowledge of HIV, have a fear of contagion or avoid treating PLWH because of the expectation that these patients will soon die; opting to prioritize non-HIV patients whom they feel they can help. HIV stigma further leads PLWH to not disclose to their families, friends, coworkers, and employers, and that the consequences of stigma was further exacerbated by intersectional stigmas relating to injection drug use, sex work, sexual orientation/behavior, and/or gender identity for these key populations.

Lack of Social Support. Social support was viewed as a powerful driver in helping patients to stay engaged in HIV care. Key informants described how individuals feel empowered when they have good social support. They emphasized the need to provide support in a way that does not stigmatize or demean people, their behaviors, or their life circumstances; especially for PLWH from vulnerable key populations who experience intersectional stigmas. Key informants underscored the need to strengthen communication skills that would allow providers to empathize and validate patients' life experiences when working with these target populations.

Feedback on the approaches of the program. Overall, the KI agreed that *Conexiones*, which utilizes community-based and PN approaches, would be useful for helping out-of-care members of vulnerable populations reengage in HIV care.

Perceptions of a community-based approach. It was perceived that the program could assist with decentralizing care from *CAPASITS,* fostering and coordinating community collaborations to locate and support patients' non-HIV related needs, and provide patients with the social support they need to stay engaged in HIV care. Due to the distant location of *CAPASITS*,

one of the main perceived strengths of the *Conexiones* was that it would help to connect patients to care via a telemedicine program housed at the host CBO that has substantial experience working with vulnerable populations in the *Zona Norte;* complementing the goals of the *Conexiones* program. The KIs felt that the CBOs experience working with these populations would aid in locating patients who are LTF. Their established rapport with these populations (PWID specifically) and other CBOs could also be leveraged to connect and coordinate efforts between CBOs to effectively address unmet needs. However, the KI acknowledged that more than 1 CBO with 3 PNs would be needed to effectively locate and reengage patients LTF.

Perceptions of a peer navigation approach. Key informants discussed how despite the availability of telemedicine at the CBO, there were still barriers to linkage and retention to HIV care that *Conexiones* could potentially address. Specifically, by having PNs work with patients; it was perceived that the program could help to reduce stigma and provide a source of social support. It was discussed that in contrast to health-care providers, PNs should be more likely to earn the trust and build rapport with patients, and to use a communication style that offers respect, validation, and empathy. Thus, PNs would offer the patient-centered approach largely viewed as absent in current medical settings. The KIs described how health-care providers often communicate in a paternalistic manner toward clients (eg, making judgments about and trying to dictate the patient's behaviors or lifestyles). In contrast, PNs were perceived as persons who could communicate better with patients to help patients feel more comfortable and speak more freely about their experiences, life circumstances, and needs. The common ground shared by PNs and clients was seen as engendering the empathy that could help patients to become and stay motivated to engage in HIV care. Finally, the KIs described how PNs could be a source of social support for patients that could help to build resilience and empowerment among patients, especially in the face of stigma and discrimination.

Discussion

Key populations at risk of and living with HIV are in need of differentiated, targeted approaches to improve engagement in the HIV care continuum.[7,17,18] In Tijuana, Mexico, key populations living with HIV include PWID, FSW, MSM, and TGW.[23–26] Barriers to HIV care in Tijuana that are hypothesized to exist among these key populations include geographic- and transportation-related barriers, as well as sociostructural barriers including stigma and criminalization.[11,13] Following WHO recommendations,[7,17] we developed and proposed a new program called *Conexiones* to community stakeholders in Tijuana. We collected survey responses from representatives of 8 CBOs and conducted in-depth interviews with 3 KIs to measure perceived need and acceptability of the program.

Upon learning about the program's proposed objectives and activities, there was a consensus among CBOs in Tijuana that there was a need for this type of program, that the program had the potential to improve HIV care in Tijuana, particularly among key populations, and that the program would complement existing services offered by CBOs. There was also agreement that *Conexiones* needed to expand to intentionally include MSM and TGW, not just those who may also inject drugs or sex work. Community-based organizations also offered important insight about the potential challenges of implementing *Conexiones*, including locating patients due to their frequent mobility, police interference, and trouble gaining insurance coverage, even with *Seguro Popular*. Key informant interviews shed further light on the perceived needs of the target population and the perceived ability of *Conexiones* to meet those needs. Key informants highlighted the need to improve patient tracking and monitoring, the need to address social factors faced by key populations, including stigma and lack of social support. Key informants also commended the community-based and PN approaches used by the program.

The study was limited in scope and sample size. This study was focused on addressing the HIV care continuum among key populations in Tijuana, Mexico. While this serves our intended purpose, the results may not generalize to other settings. However, previous research has shown that many of the same barriers to HIV care described by community participants exist for key populations in other regions of the world.[27–31] Further similar community-based PN programs have shown promise for supporting health-care outcomes for key populations in other parts of the world.[32–34] We surveyed 8 CBOs and 3 KIs in this study; while these numbers might seem small, the 8 CBOs make up the majority and primary organizations serving our key populations of interest (PWID, FSW, MSM, and TGW) in Tijuana, and the KIs are part of only a small number of HIV care providers in Tijuana ($n = 3$), and similarly, part of the only telemedicine program for HIV care in the city. In light of the results, the next step would be to develop and pilot the program with PWID, FSW, MSM, and TGW in Tijuana to evaluate feasibility, acceptability (by clients), and efficacy.

Conclusion

Community stakeholders in Tijuana expressed that a community-based PN program, called *Conexiones,* shows promise in increasing engagement of key populations into the HIV care continuum in Tijuana, Mexico. By addressing unmet needs perceived by community stakeholders, this program has the potential to achieve maximum gains in improving HIV care outcomes among PWID, FSW, MSM, and TGW in Tijuana.

Authors' Note

All authors have read and approve the final manuscript. L.R.S. and E.V.P. designed the research study and performed the research. L.R.S., E.V.P., and M.L.M. analyzed the data and interpreted the findings with respect to the extant literature and local community context. All authors contributed equally to the writing of the manuscript.

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