Using community-based participatory research to address STI/HIV disparities and social determinants of health among young GBMSM and transgender women of colour in North Carolina, USA

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Abstract
Sexually transmitted infections (STIs) and HIV disproportionately affect young persons; gay, bisexual and other men who have sex with men (GBMSM) and transgender women; persons of colour; and the U.S. South. Complex issues contribute to these high STI/HIV rates. Our community-based participatory research (CBPR) partnership conducted a community-driven needs assessment to inform an intervention addressing STI/HIV disparities and related social determinants of health (SDH) among young GBMSM and transgender women of colour in a high-incidence STI/HIV community in North Carolina. In 2018, in-depth interviews were conducted with 21 community members and 29 community organisation representatives to explore needs, priorities and assets. Interview data were analysed using constant comparison, an approach to grounded theory, and an empowerment theory-based planning process was used to develop multilevel intervention strategies based on findings. Thirteen themes emerged from the interviews that were organised into five domains: health (e.g., limited health services use; need for lesbian, gay, bisexual and transgender [LGBT]-friendly providers; prioritisation of mental health and gender transition and limited knowledge of and access to pre-exposure prophylaxis [PrEP] for HIV); employment (e.g., employment as a priority and relying on sex work to ‘make ends meet’); education (e.g., barriers to education and needs for training to improve employment opportunities); social support (e.g., few welcoming activities and groups; strong informal support networks and little interaction between GBMSM and transgender women) and discrimination (e.g., frequent experiences of discrimination and the impact of frontline staff on services use). Three strategies – community-based peer navigation, use of social media, and anti-discrimination trainings for organisations – were identified and integrated into a new intervention known as Impact Triad. CBPR was successfully applied to identify needs, priorities and assets and develop a multilevel...
1 | INTRODUCTION

1.1 | STI/HIV disparities

Sexually transmitted infections (STIs) and HIV are major health challenges in the United States. Approximately 19 million new STI cases occur every year nationally (U.S. Centers for Disease Control & Prevention, 2019c). Based on surveillance data, the U.S. Centers for Disease Control and Prevention (CDC) estimate that 1.1 million persons in the United States are living with HIV and one in seven is unaware of their status (U.S. Centers for Disease Control & Prevention, 2019e). STI/HIV rates are especially high among young persons. Forty-nine percent of all STIs in the country are among ages 15–24, and 56% of all HIV diagnoses are among ages 13–34 (Satterwhite et al., 2013; U.S. Centers for Disease Control & Prevention, 2019c, 2020).

Gay, bisexual and other men who have sex with men (GBMSM) and transgender women also carry a disproportionate STI/HIV burden. GBMSM represent approximately 4% of the U.S. adult male population but account for 64% of all syphilis cases in the country and 86% of all HIV diagnoses among men (Purcell et al., 2012; U.S. Centers for Disease Control & Prevention, 2019d, 2020). An estimated 14% of transgender women in the country are living with HIV; in contrast, HIV prevalence rates are less than 0.2% among cisgender women and 3% among transgender men (Becasen et al., 2019; U.S. Centers for Disease Control & Prevention, 2019b, 2019c).

STI/HIV disparities are particularly pronounced among GBMSM and transgender women of colour (Rhodes, Mann-Jackson, Alonzo, Bell, et al., 2020). If current rates persist, one in two African American/Black and one in four Latinx GBMSM may be diagnosed with HIV during his lifetime (Hess et al., 2016). Similarly, a recent meta-analysis estimated HIV prevalence rates of 44% among African American/Black and 26% among Latinx transgender women, compared to 7% among White transgender women (Becasen et al., 2019).

1.2 | Guilford County, North Carolina

The U.S. South, a region that includes 16 U.S. states and the District of Columbia and has a population over 125 million (U.S. Census Bureau, 2020), is disproportionately impacted by STIs/HIV. The South has the highest chlamydia and gonorrhea rates and second-highest syphilis rate in the country (U.S. Centers for Disease Control & Prevention, 2019c). Southern states account for 51% of HIV diagnoses in the country each year, despite having 38% of the overall population (U.S. Centers for Disease Control & Prevention, 2019a).

North Carolina reflects the South’s high STI/HIV rates, ranking sixth in the country for reported cases of chlamydia, ninth for gonorrhea, fifteenth for syphilis and in the top 10 U.S. states with the highest rates of HIV diagnoses (U.S. Centers for Disease Control & Prevention, 2019b, 2019c). Guilford County, located in the Piedmont Triad region of central North Carolina, has higher STI/HIV rates than the state and country overall, and STI/HIV disparities by age, sexual orientation, gender identity and race/ethnicity are also reflected at the local level (Smith & Mrosla, 2019).

1.3 | Social determinants of health

Complex issues contribute to STI/HIV rates among young GBMSM and transgender women of colour, including intersecting individual, sociocultural, environmental, system and policy factors that influence health behaviours and outcomes. The health of young GBMSM and transgender women of colour in Guilford County is profoundly affected by these social determinants of health (SDH), with disparities in employment and educational attainment based on race/
ethnicity (Solar & Irwin, 2010; U.S. Census Bureau, 2018). GBMSM and transgender women across North Carolina also face discrimination. For example, 98% of the state workforce is not protected by policies prohibiting discrimination due to sexual orientation or gender identity and there is a 16% income disparity between male workers who identify as straight and those who identify as gay (Mallory & Sears, 2014). Among North Carolina participants in the U.S. Transgender Survey, nearly a third reported negative experiences with healthcare providers and employers related to being transgender, and 75% reported mistreatment (e.g., verbal harassment and physical violence) in school (National Center for Transgender Equality, 2017).

1.4 | Purpose

Given the profound disparities affecting young GBMSM and transgender women of colour, our community-based participatory research (CBPR) partnership sought to inform an intervention to address disproportionate STI/HIV rates and critical SDH among these communities. We conducted a community-driven needs assessment in Guilford County to better understand needs and priorities related to STI/HIV prevention, screening and treatment and SDH among young GBMSM and transgender women of colour locally, and to identify existing community assets. Based on needs assessment findings, we developed intervention strategies to reduce STIs/HIV and improve SDH.

2 | METHODS

2.1 | Community-based participatory research

This study was conducted by a long-standing CBPR partnership comprised of community members, community organisation representatives and academic researchers (Rhodes et al., 2014). On all aspects of the study, the partnership worked collaboratively with a 15-member community advisory board (CAB) committed to partnering on research to improve the health and well-being of local young GBMSM and transgender women of colour. Sixty-seven percent of the CAB self-identified as GBMSM and 27% as transgender women; 60% self-identified as African American/Black and 27% as Latinx.

2.2 | Participant recruitment

In-depth interviews were conducted with community members identified as informal leaders among local communities of young GBMSM and transgender women of colour and with representatives from local organisations that served young GBMSM and transgender women of colour and/or provided services related to STI/HIV prevention, screening and treatment (e.g., health departments, community clinics and HIV-serving organisations) or SDH (e.g., job training programs, public libraries, community foundations, immigrant-serving organisations, and local colleges and universities). CAB members identified and nominated community members and community organisation representatives to invite to participate in interviews, and interview participants were asked to nominate additional potential participants. Potential community member participants were first approached by the CAB member or interview participant who nominated them and, if interested in participating, the nominating CAB member or interview participant put them in touch with members of the CBPR partnership. Community organisation participants who were nominated were approached directly by partnership members and invited to participate.

2.3 | Data collection

Interview guides in English and Spanish were developed and reviewed by the CAB, with careful consideration to wording, sequence and content. The guides explored experiences and perceptions related to sexual and general health and SDH. Abbreviated sample items from the guide used with community members are outlined in Table 1. Interviews with community organisation representatives included similar items but were oriented toward their experiences in service delivery.

Participants were interviewed individually or in small groups of two or three, based on participant preference, in private and convenient locations within the community in February-March 2018. Twenty-one community members were interviewed (nine were CAB members); 18 participated in individual interviews and three participated in a group interview. Twenty-nine representatives from community organisations were interviewed; 11 participated in individual interviews and 18 participated in small group interviews with other representatives from the same community organisation. Interviews averaged 50 min in length and were audio-recorded with participants’ permission. Community member participants were interviewed in English (n = 18) and Spanish (n = 3) and community organisation participants were interviewed in English. Community member participants provided basic demographic information and community organisation participants provided background information about their organisation.

The interviewers were a White gay man and a native Spanish-speaking Latinx gay man. Each interviewer’s demographic characteristics (e.g., age, race/ethnicity, sexual orientation, gender identity and language) were similar to community member participants’ demographics in some ways but differed in other ways. Similarities between interviewers and participants can increase the comfort that participants feel, resulting in increased disclosure, and differences between interviewers and participants can elicit perspectives often omitted as common knowledge if an interviewer and participant share the same attributes or experiences (Thomas, 1992).

After each interview, interviewers discussed the interview and completed and revised detailed notes; notes from interviews
conducted in Spanish were translated into English to allow all CBPR partnership members to participate in analysis.

### 2.4 Data analysis and intervention strategy development

Interview data were analysed using constant comparison, an approach to grounded theory that captures a wide array of experiences and builds understanding inductively (Charmaz, 2006). CBPR partnership members read and reread de-identified interview notes, compared and contrasted content categories based on each member’s interpretation of the data, and identified emerging themes. Partnership members then met with the CAB to revise and interpret themes and develop intervention strategies. An empowerment theory-based method was used to guide the discussion of the themes with the CAB; preliminary themes were presented and CAB members were invited to respond to data through a sequence of triggers leading from the concrete (e.g., ‘What do you see in these findings?’) to the action-oriented (e.g., ‘Which of these findings are a priority for making a difference in the lives of young GBMSM and transgender women of colour locally?’). A consensus approach was used, resolving discrepancies through discussion. CAB members and CBPR partnership members then used an iterative health promotion planning process to develop intervention strategies that could address community needs and priorities and leverage community assets identified in the needs assessment. A nominal group process was used to identify and prioritise approaches to reduce STI/HIV disparities and improve SDH based on importance and changeability (Becker et al., 2013; Green & Kreuter, 1991).

### TABLE 1 Domains and abbreviated sample items from in-depth interview guide for community member participants

| Health                                 |                                     |
|----------------------------------------|-------------------------------------|
| What are your main personal health concerns? |                                     |
| What challenges have you related to accessing health services? |                                     |
| What local resources do you know of that provide STI/HIV prevention, testing or treatment services? |                                     |
| Tell me about what you know or have heard about pre-exposure prophylaxis (PrEP) for HIV. |                                     |
| Have you ever been made to feel uncomfortable when going to a health provider? |                                     |
| How do employment, education, social support, and discrimination affect your health? |                                     |
| What else can you think of that affects your health and well-being? |                                     |

### TABLE 2 Select community member in-depth interview participant characteristics (n = 21)

| Characteristic                  | Mean (SD) or n (%) |
|---------------------------------|--------------------|
| Age (years)                     | 34.8 (11.9)        |
| Racial/ethnic identity          |                    |
| African-American/Black          | 9 (43)             |
| Latinx                          | 5 (24)             |
| Multiracial/multiethnic         | 4 (19)             |
| White                           | 3 (14)             |
| Gender                          |                    |
| Cisgender male                  | 14 (67)            |
| Transgender female              | 5 (24)             |
| Cisgender female                | 2 (9)              |
| Sexual orientation              |                    |
| Gay                             | 9 (43)             |
| Bisexual                        | 4 (19)             |
| Heterosexual                    | 7 (33)             |
| Other                           | 1 (5)              |
| Place of origin                 |                    |
| Guilford County, NC             | 5 (24)             |
| Other county in NC              | 4 (19)             |
| Other US state                  | 8 (38)             |
| Mexico                          | 4 (19)             |
| Length of time in Guilford County (years) | 18.3 (11.6) |
| Relationship status             |                    |
| Single, separated, or divorced  | 12 (57)            |
| Partnered or married            | 9 (43)             |
| Living situation                |                    |
| Living with family, friend(s), partner(s) | 12 (57) |
| Living alone                    | 8 (38)             |
| Homeless                        | 1 (5)              |
| Employment                      |                    |
| Employed                        | 16 (76)            |
| Unemployed                      | 5 (24)             |
| Education level                 |                    |
| At least some college           | 15 (71)            |
| High school diploma or lower    | 6 (29)             |
2.5 | Ethics

Each community member who participated in an interview received $20.00 (U.S.) for their time. Written informed consent was obtained from participants, and the Wake Forest School of Medicine Institutional Review Board approved all study protocols. All partnership members involved in analysing interview notes had completed certification in human subjects research ethics training.

3 | FINDINGS

3.1 | Participant characteristics

Key characteristics of community members who were interviewed are presented in Table 2. The average age of these participants was 35. Forty-three percent identified as African American/Black, 24% as Latinx and nearly 20% as multiracial/multiethnic. Sixty-seven percent identified as cisgender male and 24% as transgender female. The majority identified as gay (43%) or bisexual (19%). Seventy-six percent of participants were employed and 71% had completed at least some college.

Community organisation representatives who were interviewed included representatives from healthcare organisations (n = 9), social service organisations (n = 9), universities (n = 6), local foundations (n = 3), faith-based organisations (n = 1) and small businesses (n = 1).

3.2 | Qualitative findings

Thirteen themes emerged from the interviews and were organised into the domains of health, employment, education, social support and discrimination. These themes are presented in Table 3.

3.2.1 | Health

There is little use of healthcare resources
Participants reported that many young GBMSM and transgender women of colour were uninsured, which presented a barrier to accessing health services. Few had a primary care provider or utilised routine and preventive health services. Moreover, other basic needs such as housing often took priority over seeking healthcare; a community organisation participant concluded, ‘If someone is HIV positive, getting access to their daily medication isn’t as important if they’re sleeping under a bridge every night’.

There is a need for more lesbian, gay, bisexual and transgender (LGBT)-friendly providers
Participants indicated a need for more providers with a reputation of being LGBT-friendly and, thus, whom young GBMSM and transgender women of colour could trust and feel comfortable with when seeking care. Concerns that providers would not be accepting and affirming of their sexual orientations and gender identities prevented young GBMSM and transgender women of colour from accessing care.

Healthcare priorities include mental health and gender transition
Participants described mental health concerns such as depression as being a critical health issue for young GBMSM and transgender women of colour, and reported that there were unmet needs for mental health services locally. Among young transgender women of colour, access to medically supervised hormone therapy for gender affirmation was another important healthcare priority that needed to be addressed.

Little knowledge exists about accessing pre-exposure prophylaxis (PrEP) for HIV
Participants reported that young GBMSM and transgender women of colour faced barriers to using PrEP to prevent HIV. Participants shared that many young GBMSM and transgender women of colour did not know which local healthcare providers prescribed PrEP or how to access payment assistance programs for PrEP, which was perceived as costly and stigmatised (e.g., associated with sexual risk behaviour).

Participants also reported that some young GBMSM and transgender women of colour obtained PrEP from nonmedical sources, such as through persons with PrEP prescriptions who distributed PrEP to others who did not have prescriptions. Participants worried about whether the medication being distributed was truly PrEP.

| TABLE 3 | The needs and priorities of young GBMSM and transgender women of colour in Guilford County, NC: In-depth interview findings |
| --- | --- |
| **Health** | **Employment** |
| There is little use of healthcare resources. | Employment is a high priority. |
| There is a need for more lesbian, gay, bisexual and transgender (LGBT)-friendly providers. | Some community members must rely on sex work to ‘make ends meet’. |
| Healthcare priorities include mental health and gender transition. | Education Barriers to education exist. |
| Little knowledge exists about accessing pre-exposure prophylaxis (PrEP) for HIV. | Education and training are necessary for improving employment opportunities. |
| **Social support** | **Social support** |
| Few welcoming activities and groups exist. | Few welcoming activities and groups exist. |
| Informal social support exists among friends and romantic or sexual partners. | Informal social support exists among friends and romantic or sexual partners. |
| GBMSM and transgender women do not interact. | GBMSM and transgender women do not interact. |
| **Discrimination** | **Discrimination** |
| Experiences of discrimination based on sexual orientation, gender identity and race/ethnicity are common. | Experiences with frontline staff and healthcare providers impede use of services. |

The needs and priorities of young GBMSM and transgender women of colour in Guilford County, NC: In-depth interview findings
3.2.2 | Employment

Employment is a high priority

Participants explained that young GBMSM and transgender women of colour prioritised obtaining and maintaining employment because it was essential for securing safe and stable housing and covering other basic expenses, increased self-efficacy to problem-solve, and generally improved quality of life. A community member participant stated, ‘If you don’t work, you don’t eat. If you don’t have all the things you need, that leads to stress, and stress will make you do some crazy things’.

However, participants reported multiple barriers to employment. Lack of transportation (e.g., not having a personal vehicle and limited public transportation) created practical challenges to applying for jobs and getting to work. Discrimination by employers and co-workers made employment even more difficult. Experiences of employment-related discrimination included transgender women of colour not being hired for or being fired from a job due to their gender identity, not being allowed to use the bathroom at work that matched their gender identity, and being mis-gendered and harassed by employers or co-workers. A community member participant shared,

Years ago when I applied for a job, the employer looked at me from head to toe and didn’t have a good attitude with me, first because I’m Latina, but when he found out I am transgender, that was worse. He didn’t check my application, he ignored me throughout the interview, and didn’t look me in the eye. I wasn’t contacted after that.

Ineligibility for some jobs due to immigration status was noted as an additional barrier for some.

Participants identified needs for employment-related services such as resume assistance, noting that young GBMSM and transgender women of colour often lacked knowledge about local resources where they could access these services and, even when they were aware of these resources, knowledge did not always translate into use. For example, a community member participant noted concerns about employment resources being sensitive to the challenges faced by young GBMSM and transgender women of colour, stating, ‘These employment resources are all for naught if we’re sent to interview for a job with an intolerant employer’.

Some community members must rely on sex work to ‘make ends meet’

Participants reported that, due to barriers to employment, some young GBMSM and transgender women of colour engaged in sex work to meet basic needs. Sex work was described as common among transgender women, given the ways that discrimination limited their employment opportunities. Participants explained that sex work put young GBMSM and transgender women of colour at risk for STIs/HIV and violence.

3.2.3 | Education

Barriers to education exist

Participants expressed that many young GBMSM and transgender women of colour were interested in obtaining additional education, but faced barriers to accessing locally available education resources, such as those at public libraries, community colleges, job training programs and other community organisations. Participants reported that many young GBMSM and transgender women of colour were not aware of all available resources and others were unable to attend classes due to time conflicts with inflexible work schedules or exhaustion after working long hours. A community member participant shared, ‘[I would like to] go back to school to learn more English, computer classes too, but attendance is important and when you have a regular job it’s very hard to achieve that’. Participants also perceived education-related services as expensive, limited based on immigration status, and not welcoming to members of the LGBT community.

Education and training are necessary for improving employment opportunities

Participants emphasised that access to education was important for building skills sought by potential employers. Participants highlighted the need for computer classes and other job readiness classes, such as training to obtain certification for specific job roles (e.g., nursing assistant or welding) and language courses for young Latinx GBMSM and transgender women who did not speak English fluently.

3.2.4 | Social support

Few welcoming activities and groups exist

Participants reported that some organised activities existed for members of the LGBT community (e.g., LGBT recreational sports leagues) but were perceived as White spaces; young GBMSM and transgender women of colour felt unwelcome to participate in these activities. Similarly, more formal resources such as support groups included few young GBMSM and transgender women of colour and did not offer services in Spanish for non-English speakers.

Informal social support exists among friends and romantic or sexual partners

Participants explained that young GBMSM and transgender women of colour were more likely to obtain social support through members of their social networks than through community organisations, and that support received from friends and partners was invaluable. However, lack of support from and rejection based on sexual orientation and gender identity by family members were major challenges.
GBMSM and transgender women do not interact
Participants reported that, although young GBMSM and transgender women of colour saw one another in settings such as local Pride festivals and nightclubs, the two groups rarely interacted, which was noted as a missed opportunity for social support. A community member stated, ‘I think we get along, but there is no meeting point for the community’. Young transgender women of colour cited a need for young GBMSM of colour and other members of the LGBT community to increase their understanding of the challenges faced by transgender persons, such as experiences of violence, in order to better support one another. A community member participant who identified as a transgender woman shared, ‘It should be called LGB minus T because the issues that transgender people face are much different’, and another who identified as a gay man affirmed this need for greater awareness, stating, ‘I had no idea what all goes into transitioning’.

3.2.5 | Discrimination
Experiences of discrimination based on sexual orientation, gender identity and race/ethnicity are common
Participants reported frequently experiencing verbal discrimination and violence. Participants explained that many young GBMSM and transgender women of colour have developed strategies for coping with discrimination (e.g., trying to ignore or maintain a positive attitude in spite of negative treatment) but that discrimination had a particularly strong impact in certain settings such as the workplace. A community member participant shared, ‘When discrimination comes from people I don’t know, it doesn’t bother me. It’s when it comes from a boss or potential employer that it bothers me’, while others stated, ‘There’s no room to be yourself in the workplace’, and ‘It’s hard to be a gay Black man and get a job’. Additionally, discrimination by law enforcement (e.g., racial profiling or using incorrect names or pronouns) was common and affected the lives of young GBMSM and transgender women of colour in serious and negative ways (e.g., not trusting police and not reporting victimisation).

Experiences with frontline staff and healthcare providers impede use of services
Participants reported that the way staff and providers at health service organisations treat young GBMSM and transgender women of colour affects how likely they are to seek services; a community organisation participant emphasised, ‘All it takes is one bad experience to keep someone out of care’. For example, a community member participant described feeling stigmatised and judged by his healthcare provider for his sexual behaviour when he requested STI/HIV screening. Another shared that he and his friends had decided not to return for STI/HIV screening at a local organisation after a negative experience with frontline staff; participants also reported challenges with frontline staff related to pronoun use (for transgender women of colour) and language use (for non-English speakers).

3.3 | Intervention strategies
Three primary strategies designed to promote STI/HIV prevention, screening, and treatment and address prioritised SDH (i.e., employment, education, social support and discrimination) among young GBMSM and transgender women of colour emerged. These strategies were multilevel and included (a) community-based peer navigation; (b) use of social media; and (c) anti-discrimination trainings for organisation staff.

3.3.1 | The Impact Triad intervention
The CAB and CBPR partnership integrated these strategies into the bilingual Impact Triad intervention. CAB members developed this name to reflect their desire for the intervention to positively ‘impact’ the local community (i.e., Guilford County and the surrounding Piedmont Triad region). The intervention logo developed by the CAB is presented in Figure 1. Implementation and evaluation of Impact Triad is ongoing.

Community-based peer navigation
Based on needs assessment findings about lack of knowledge and other access barriers to local resources and about the potential to leverage existing informal social support networks, the intervention includes training young GBMSM and transgender women of colour as community-based peer navigators, known as ‘community navigators’. Community navigators meet monthly as a group with one another and with members of the CBPR partnership in convenient locations within trusted community organisations and throughout each month carry out helping activities with members of their social networks in the community within the context of their daily lives.

As health advisors, community navigators provide information to social network members to meet needs and priorities related to STI/HIV prevention behaviours (e.g., condom and PrEP use), screening and treatment, as well as SDH (e.g., employment and education), offering guidance on where to go for and how to access local available services. As opinion leaders, during interactions with social network members community navigators reframe unhealthy norms and expectations related to STIs/HIV or SDH. As community advocates, community navigators bring the voices of young GBMSM and transgender women of colour to local community organisations, sharing feedback for improvements based on the perspectives of social network members.

Community navigators also build social support within and across social networks, providing support to network members and encouraging them to support one another. Needs assessment findings suggested that it was important that the intervention be bilingual in English and Spanish and build community across race/ethnicity and across gender identities (i.e., cisgender GBMSM and transgender women). Community navigators are trained to use an adapted version of the ‘ask-advice-assist’ model (Rhodes et al., 2013) known as ‘IMPACT’ (or ‘IMPACTO’ in Spanish); each letter of the
acronym represents a step in the natural helping process. A low-literacy wallet-sized reminder card developed in partnership with the CAB serves as a ‘cheat sheet’ for community navigators on these steps for supporting others (Figure 2). Community navigators work informally and formally with members of their social networks for 12 months; five members of each community navigator’s social network are enrolled for pre- and post-implementation evaluation data collection.

Use of social media
In addition to one-on-one and group-level in-person helping, community navigators create and update intervention-related social media accounts (e.g., Facebook and Instagram) to share relevant information and resources about STI/HIV prevention, screening, and treatment and prioritised SDH; they also use their own social media accounts for messaging with social network members.

Anti-discrimination trainings for organisation staff
To reduce discrimination experienced by young GBMSM and transgender women of colour based on intersecting identities, the CAB and CBPR partnership developed six brief online videos presenting testimonials from community navigators. Testimonials were designed to raise consciousness among service providers about the challenges and barriers young GBMSM and transgender women of colour face when accessing resources related to STI/HIV and SDH, and what can be done to facilitate access. The purpose was to produce training materials that were easily accessible, did not require a large commitment of time to watch, and could meet the learning needs of a variety of service providers at all levels, with a particular focus on frontline staff. It was clear during the needs assessment that frontline staff could benefit most from this type of training, but were the least likely to have time away from their work stations for training. Dissemination of these videos to community organisations is ongoing; videos are available at: https://www.youtube.com/channel/UCd7gOGhBeT0w1CTq5BwMcQ.

4 DISCUSSION
Our community-driven needs assessment in a high-incidence STI/HIV community in the South yielded important findings to inform the development of Impact Triad, a multilevel intervention to reduce STI/HIV disparities and improve related SDH among young GBMSM and transgender women of colour. These particularly vulnerable community members are rarely engaged through authentic power-sharing approaches to better understand community needs, priorities, and assets and develop meaningful intervention strategies to reduce health inequities (Rhodes, Daniel-Ulloa, et al., 2020; Rhodes et al., 2014).
Participants reported low health services use among young GBMSM and transgender women of colour, leaving unmet health needs. In particular, we found low uptake of PrEP, mirroring data at the national level indicating that PrEP is not reaching many of those who could most benefit from this biomedical innovation, given lower rates of use among populations bearing the greatest burden of HIV such as communities of colour and in the South (Huang, 2018). At the same time, participants emphasised the major impact of SDH on health and well-being and that needs related to SDH, particularly employment, often took priority and were a necessary precursor to meeting health needs. Accordingly, interventions designed for young GBMSM and transgender women of colour must simultaneously focus on health promotion and prioritised SDH.

We also documented sizeable barriers to accessing services related to STIs/HIV (including PrEP) and SDH such as employment and education, including lack of knowledge about existing resources, that align with other findings among young GBMSM and transgender women of colour (Matacotta et al., 2020). However, awareness of resources does not always translate into access and use; resources may still be perceived as unwelcoming, and challenges such as transportation may still exist. Through community navigators’ in-person helping activities and use of social media, Impact Triad seeks to both increase knowledge and awareness about how to access services among young GBMSM and transgender women of colour and to help problem-solve access barriers.

Participants stressed the importance of social support, which has been linked to positive sexual health outcomes (Qiao et al., 2014). However, participants noted a lack of supportive spaces for young GBMSM and transgender women of colour locally. Impact Triad aims to leverage existing informal social networks and build community across racial/ethnic groups and gender identities by training young GBMSM and transgender women of colour to serve as community navigators who in turn provide support within their social networks.

Finally, our findings reinforced the ways that discrimination affects all aspects of health and intensifies other SDH (e.g., discriminatory hiring and firing practices) (Center for the Study of Inequality, 2019; Williams et al., 2019). In response to findings related to the need for more LGBT-friendly providers and the important role of frontline staff, Impact Triad’s trainings for organisations are designed to raise consciousness as a first step to reducing
discrimination that can be a barrier to young GBMSM and transgender women of colour seeking services.

Intervention implementation and process and outcome evaluation of Impact Triad are ongoing, but the intervention strategies developed are promising in that they integrate local needs assessment findings with existing evidence on multilevel approaches to reducing health disparities. Natural helping, such as through community navigators, has been recognised as potentially effective to address health issues in marginalised communities. Community navigators are part of the communities in which they work and possess an intimate understanding of what is meaningful to communities, communicate in the ways that community members share information with one another, strengthen existing community ties, and serve as ‘connectors’ between community members and local health-promoting resources (Eng et al., 2009). Social media has also been identified as a highly effective strategy to reach young GBMSM and transgender women of colour (Tanner et al., 2018).

These strategies may become even more important in future efforts to address the needs of young GBMSM and transgender women of colour, particularly in the South. There is emerging evidence that the COVID-19 pandemic is disproportionately affecting communities of colour and LGBT communities and is both shaped by and impacting SDH (Millett et al., 2020; Phillips et al., 2020; Rhodes, Mann-Jackson, Alonzo, Garcia, et al., 2020; Rhodes & Sy, 2020; Rodriguez-Diaz et al., 2020; Stokes et al., 2020); thus, utilising social media to promote social support and health services access within the context of social distancing and addressing the determinants prioritised in this needs assessment and in Impact Triad, and others highlighted by participants (e.g., housing), will be crucial to reducing disparities among these communities.

4.1 Limitations

Our needs assessment was based on in-depth interviews with a purposive sample of community members and community organisations in one region in North Carolina, which may affect generalisability. However, given STI/HIV disparities based on age, sexual orientation, gender identity and race/ethnicity at the national level, and regional trends in the STI/HIV epidemics, our findings may be relevant to other communities of young GBMSM and transgender women of colour, particularly in the South. Furthermore, we are currently evaluating Impact Triad and, if found effective, it may serve as a model for other communities to use to intervene on STI/HIV disparities and related SDH.

In addition, community member participants in in-depth interviews had higher levels of employment and education and a slightly higher average age than the general population of young GBMSM and transgender women of colour our intervention strategies were developed to reach, due to interviewing individuals considered to be informal leaders within their communities. However, these community member participants were asked to share about their current and past experiences, as well as those of other young GBMSM and transgender women of colour they knew, to capture a broad range of experiences.

5 CONCLUSIONS

This community-driven needs assessment used methods aligned with CBPR to identify needs and priorities related to STI/HIV prevention, screening and treatment and SDH among young GBMSM and transgender women of colour in a region in the South. Needs assessment findings helped to inform the development of the Impact Triad intervention to address these needs and priorities by leveraging community assets.

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CONFLICTS OF INTEREST

The authors have no potential conflicts of interest to report.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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