Community engagement to improve access to healthcare: A comparative case study to advance implementation science for transgender health equity

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Abstract

Background

Recent calls to action have been made for Implementation Science to attend to health inequities at the intersections of race, gender, and social injustice in the United States. Transgender people, particularly Black and Latina transgender women, experience a range of health inequities and social injustices. In this study, we compared two processes of transgender community-engagement in Los Angeles and in Chicago. The study addressed inequitable access to care and adapted and extended the Exploration Planning Implementation and Sustainment (EPIS) framework for transgender health equity.

Methods

A comparative case method and the EPIS framework were used to examine parallel implementations of transgender community engagement to expand access to care. In order to foster the conceptual development and adaptation of EPIS for trans health equity, the comparative case method required detailed description, exploration, and analyses of the community-engagement processes to expand access to healthcare. In both cities, the unit of analysis was a steering committee made up of local transgender and cisgender stakeholders.

Results

Both steering committees initiated their exploration processes with World Café-style, transgender community-engaged events in order to assess community needs and structural barriers to healthcare. The steering committees curated activities that amplified the voices of transgender community members among stakeholders, encouraging more effective and collaborative ways to advance transgender health equity. Based on analysis and findings from the Los Angeles town hall, the steering committee worked with a local medical school, extending the transgender medicine curriculum and incorporating elements of transgender community-engagement. The Chicago steering committee determined from their findings that the most impactful intervention on structural racism and barriers to healthcare access would be to design and pilot a transgender employment program.

Conclusion

In Los Angeles and Chicago, transgender community-engagement guided exploration, planning, and implementation processes and led to critical insights regarding specific, local structural barriers to healthcare. The steering committee itself represented an important vehicle for individual- and community-level relationship and capacity building. This comparative case study highlights key adaptations of EPIS toward the formation of an implementation science framework for transgender health equity.

Contributions To The Literature

- The dual pandemics of COVID-19 and anti-Black violence in the U.S. have brought new attention to health equity in implementation science; this attention has excluded the persistent health inequities of transgender persons, particularly Black and Latina transgender women.
- A comparative case study method and the Exploration-Planning-Implementation-Sustainment (EPIS) framework were used to highlight the critical importance of transgender community engagement as an implementation strategy for transgender health equity.
- A steering committee in Los Angeles and in Chicago represented the two cases and consisted of transgender and cisgender stakeholders who collaboratively designed, conducted, and analyzed innovative community needs assessments in order to determine an acceptable and appropriate intervention to expand access to gender-affirming healthcare.
- Interventions to expand access to healthcare for transgender individuals are not one-size-fits-all; local contexts of inner and outer settings such as community and stakeholder engagement, financial resources, and organizational leadership support impact what is possible.

Background & Objective

Implementation science (IS) has grown from a nascent field in the 1990s to a critical 21st century discipline that interrogates pathways from efficacious research to the deployment of evidence-based interventions (1). IS systematically analyzes layers of contexts and a range of stakeholder experiences to determine intervention acceptability, feasibility, and impact in real-world settings. Essentially, IS serves to close the gap between research and practice (2). In the context of dual pandemics, the COVID-19 pandemic and the pandemic of structural racism and anti-Black violence, a new call to action has been made for IS to focus on health inequities at the intersections of race, gender, and social injustice (3–6). Building upon this call, we draw specific attention to transgender health inequity at the intersections of race, ethnicity, and immigration status and the critical importance of community engagement for implementation science.

FOOTNOTE: We use the term trans and transgender interchangeably. We also use the term Latina/x when referring to transfeminine people or research about Latin or Hispanic-descended transgender women that may include a spectrum of persons assigned male at birth who identify with a gender other than the one associated with male; in Chicago, some Steering Committee members who are transgender women and Latina, reject the term Latinx for themselves, but others do not. We also use the term Latinx when referring to trans people or research that includes both assigned-male

and assigned-female at birth trans people of Latin or Hispanic-descended trans people. We do not assume to know the identities of any of these individuals but are attempting to use the most inclusive language about the social categories they occupy in research studies or in our own research described here.

Trans Health Inequity

Trans communities face enormous social and health disparities in the United States. In addition to difficulties accessing care, national studies indicate high rates of poverty, trauma exposure, substance misuse, depression and anxiety, and HIV compared to other adult populations (7–11). At the intersections of race, citizenship, and gender, the disparities widen for Black, Latina/x, Native American, and immigrant transfeminine populations, and these intersectional categories may compound barriers to care (12). In the domain of HIV, 19% of Black transgender women reported living with HIV, compared to 1.4% of all respondents in the 2015 US Transgender Survey (7). In a 2019 – 2020 National Health Behavior Survey of 1,608 transgender women, 42% had a valid positive test for HIV, with the highest prevalence among Native American (65%), Black (62%), and Latina/x (35%) (13).

The Los Angeles Department of Public Health estimated that there were over 14,000 transgender individuals living in Los Angeles County; they also estimated that over 15% of transgender women were living with HIV (Los Angeles Department of Public Health, 2012). The UCLA Williams Institute surveyed nearly 400 transgender women living with HIV in Los Angeles County and found that 44% experienced challenges accessing health care in the previous year. More specifically, 67% could not get medication, and 47% could not get medical care when they needed it (14).

The Chicago Department of Public Health estimates that there are 10,500 transgender adult residents in the city, or 0.05% of the adult population (15), and yet transgender women make up 2% to 2.6% of the newly diagnosed HIV cases in 2017 and 2019, respectively (16). A 2016 HIV-positive cohort of transgender women in Chicago – 94% Black, 5% Latina/x, with a mean age of 30 years—indicated the following baseline characteristics: 94% were currently unemployed, 84% had an annual income < $6,000, and 77% had experienced homelessness as an adult (17). To address ongoing systemic marginalization and harm, the research team concluded that design and implementation of effective structural health interventions require enhanced efforts and strategies for transgender community engagement (17).

City-, state-, and national-level transgender health and HIV needs assessments have engaged transgender community members for study design, recruitment, and data collection (7,18–23). However, to our knowledge, very few transgender HIV prevention interventions have used IS frameworks to help identify elements key to transgender health equity.

Comparative case study to advance a transgender health equity IS framework

The case study method serves many key purposes in qualitative research. Through descriptive and interpretive recontextualization (Berlant 2007), the case study registers the importance of the case and its contextual conditions for impact on health outcomes (Baxter and Jack, 2008). More broadly, the case may serve as both “an index and horizon for development for all other cases” (Berlant, 2007, p. 670). The case study method enables exploration of concepts that cannot easily be quantified, measured, or validated, and, historically, has contributed to understanding urban life and the integration of the social ecological resources (Hamel, 1993, p. 15). Most importantly, perhaps, it is a method that refuses “to accept visible social relationships as ‘the’ social reality” and rejects empirical assumptions (e.g., that gender is binary, immutable, or static) (Levi-Strauss in Hamel, 1993, p. 30). This critical approach (Greenhalgh, Potts, Wong, Bark, & Swinglehurst, 2009) to community health practice and research uses conceptual and theoretical interventions to extend more traditional health research methods. The method is a tool to foster theory development, in this case a trans health equity IS framework, through detailed description, exploration, and analyses of a social phenomenon (24).

Unlike with grounded theory methods, experiences articulated by transgender community members are not the point of departure for theory. Theory—explored via case study—aims to identify the logics that undergird the social realities that participants may express (1993). Cases operate in specific, local contexts and provide a window onto broader social phenomena. At case-specific intersections of structural racism, sexism, nationalism, economic marginalization, and transphobia, we have adapted an IS framework to identify unique barriers and facilitators to trans health intervention implementation (3,4,25–28).

Objective

In this study, our objective was to highlight community engagement as an exemplary strategy to advance IS for transgender health equity. We use a comparative case study method and the Exploration, Preparation, Implementation and Sustainment (EPIS) framework to explore two recent examples, one in Los Angeles and one in Chicago, of transgender community-engaged implementation practice for expanding access to quality care and improving health equity (26,29). Our comparative case study enabled us to identify contextual factors and processes of community engagement that have facilitated multilevel interventions to address transgender health equity particularly in relation to HIV treatment and prevention. Based on our findings, we extended and adapted the EPIS framework into an intersectional one - a trans health equity IS framework - that accounts for and addresses transgender community engagement at the core of health equity.

Methods

Settings and case definitions

Following Baxter and Jack (2008), our cases are defined by the following parameters. First, these cases originated in 2016 and 2019 in urban U.S. settings – Los Angeles and Chicago, specifically – and are ongoing. Second, they both began as community-engagement projects with the goal of creating and implementing an intervention that serves to expand access to care for transgender persons. For both cases, the community engagement process was planned, driven, and analyzed by a steering committee consisting of a cross-section of stakeholders and community members spanning a range of age, genders, race and ethnicities, locations, and professions. In 2022, the TAP steering committee began its fourth year, and the LA steering committee has not convened since the pandemic began in 2020. As members of these steering committees, the author team acknowledges unequal power dynamics within each steering committee despite attempts to level them through this collaboration; these dynamics are emblematic of both the inequitable distribution of access to resources that transgender communities face as well as the need for trans health equity implementation frameworks.

In Los Angeles, this committee consisted of a combination of cisgender and transgender stakeholders who were primarily employed as faculty and health researchers, program staff, trainers, and/or advocates at UCLA, UCLA Health, and local community-based organizations that provide healthcare, services, and conduct health research with transgender individuals. There were approximately ten members at any given time while the project was ongoing, with representation from Latinx, Black, Native American, and White communities. The Los Angeles steering committee met on several occasions leading up to the main community event (referred to as the "Town Hall Meeting") in order to determine the location, the format, and logistics of the event, brainstorm discussion questions, and assign facilitator and notetaker roles. The steering committee was also critical to the next steps of the project. Immediately following the Town Hall Meeting, it was responsible for compiling and analyzing the notes from the discussions and authoring the recommendations based on the analysis. Meetings were then convened on a quarterly or biannual basis to enable the steering committee to provide ongoing guidance and feedback on next steps throughout the intervention development and implementation process. Ongoing support for the steering committee and its activities was provided by the California HIV/AIDS Research Program through the Center for AIDS Research Health Disparities Core, with additional supplementary funding from the UCLA AIDS Institute.

In Chicago, except for one cisgender program evaluation expert during year one, the Trans Accountability Project (TAP) steering committee consisted of approximately ten multi-generational, transgender and nonbinary persons who are public health, housing, and social service providers, advocates, and one faculty researcher. TAP consists of Latinx, Black, White, and multiracial members. Organizationally, TAP is led by the Midwest's largest FQHC serving LGBTQ+ persons and partners with three community-based organizations that serve transgender women, particularly in areas with high HIV incidence or prevalence in Chicago. All three partner organizations are small, grassroots, and have significant Trans and/or Black leadership.

The steering committee's objective in year one was to design and conduct a community needs assessment during two mobilization events where community members and allied stakeholders could convene and collectively assess community needs. Based on the findings from the assessment, TAP would develop an intervention to address unique, intersectional forms of structural racism and marginalization that hinder access to care for Black and Latina transgender women (28,30).

The EPIS Framework for Trans Health Equity

The EPIS framework specifies four key phases and three key constructs to guide the implementation process (26). To describe the results of both cases, we use the key constructs, primarily focusing on Bridging and Innovation, to organize and describe the phases of exploration, planning, and implementation. The sustainment phase is largely addressed for future consideration in the discussion. Woodward and colleagues recently advanced work on incorporating health equity domains and an "equity lens" into existing IS frameworks, including EPIS. They specifically recommend integrating culturally relevant factors of recipients, clinical encounter or patient-provider interaction, and societal context. They note that some recent work is focused more on equity in relation to implementation strategies but point out that there is "considerably more work to be done on this…" (31). We saw this application of an equity lens to be an important opportunity for advancing transgender health equity using community engagement strategies. Our results are organized in terms of the EPIS constructs: Bridging & Innovation followed by the Inner and Outer Contexts.

Author team, reflexivity, and ethical issues

The author team consists of members of both steering committees. Though the majority of the author team is transgender and/or a person of color, those of us employed directly by academic institutions are primarily cisgender and/or white. Addressing this kind of unequal distribution of power is a focus of both this manuscript and each of the steering committees since power dynamics relate to structural sources of health inequities and health injustice. Though our findings are not generalizable, the author team used the Standards in Reporting Qualitative Research to improve the transparency of our processes (32). The institutional review boards for each steering committee waived the respective intervention planning, development, and implementation as human subjects research.

Results

Bridging & Innovation: Transgender Community-Engagement to Explore, Plan, and Implement

Adapting the World Café Model

Developed by Junita Brown and David Isaacs in the 1990s, the World Café model (WCM) provides a platform to bring marginalized voices to discussions around particular civic issues, such as expanding access to care, and facilitates community-building and engagement (33,34). Typically, world café events are structured around numerous small-group discussions on curated topics and questions, relevant to specific goals. WCM offers a more horizontal approach to consider health inequities compared to individually-focused and extractive methods such as surveys or even focus groups. This approach was selected to generate dialogue around key topics that centered trans voices. Held in safe, accessible spaces reserved specifically for these events, use of WCM promoted cooperative, practical ways of knowing, and connectedness among communities and stakeholders (35).

In Los Angeles and Chicago, both steering committees curated activities that would amplify the voices of transgender community members among stakeholders, encouraging more effective and collaborative ways to advance transgender health equity. Both steering committees used WCM as a method for organizing and developing a foundation upon which to build both relationships and interventions within and across HIV prevention, healthcare, and social service stakeholders and transgender communities.

Los Angeles: Community Engagement to Inform Intervention Development

Exploration: the Transgender Town Hall. The Town Hall was hosted at a central Los Angeles location on a weekday evening. Complimentary dinner was served and gift cards were provided to all Town Hall participants. Over 40 transgender and gender non-conforming participants attended and contributed to the Town Hall event. Using the World Cafe format, discussions were structured around three areas of concern: (1) primary health care, (2) mental health care, and (3) HIV prevention and treatment. Participants rotated to three different tables for 25 minutes per topic. This rotation afforded each participant the opportunity to provide input across all three domains with different facilitators and peers in each rotation. For each topic, a facilitator used a set of structured probes to prompt conversation in the given subject area, and an observing note-taker recorded participants' responses and ideas (see Appendix for three sets of probes). Groups were available for both English- and Spanish-speaking participants. At the end of the Town Hall, all participants reconvened as a larger group and were able to share their feedback about the event and suggestions for next steps.

Planning: the Transgender Town Hall findings. After the Town Hall, the steering committee compiled the discussion notes, identified themes, and then developed them into a set of recommendations. Recommendations were organized based on available resources and capacity of the project team and steering committee. For example, regular statewide competency trainings on transgender health for organizations funded by the California Department of Public Health, while an appropriate response to the Town Hall findings, would require immense financial and labor resources and thus were deemed less feasible. This document was distributed to the Town Hall participants and shared with the California HIV/AIDS Research Program, the Center for AIDS Research Health Disparities Core's funder, with the understanding that the document would not be made public or further shared until an implementation and dissemination plan was developed.

Implementation: Gender-Affirming Care Curriculum for UCLA Health and the UCLA David Geffen School of Medicine. The steering committee determined that based on the recommendations, UCLA was in a unique position to implement change within its health system and school of medicine. They determined that an upstream approach that aimed to promote and enhance the quantity and quality of education for health professionals around transgender health and related issues would be the most effective way to ultimately affect change. This approach is outlined below and is also reflected in the logic model (see Figure 1).

Steering committee representatives from the UCLA team met with a range of faculty and administrators to build a collaboration with the UCLA David Geffen School of Medicine (DGSOM) and its leadership. These conversations helped the team to understand what curricula was already being offered related to transgender health and wellness. The project team also became regular participants in the Clinical Training and Education Workgroup that is part of the UCLA Health System's LGBTQ Equitable Care Committee. This workgroup is dedicated to the training of UCLA Health staff, residents, fellows, and medical students, and has been an important partnership in advancing the long-term goals of the project.

In 2017 and 2018, as the team ramped up to prepare for the broader DGSOM curriculum intervention, the project team helped to coordinate several brief trainings at UCLA to provide expertise on special topics on transgender health (e.g., transgender patient records in electronic health record systems, mental health disparities). During the 2018 - 2019 academic year, the project team collaborated with UCLA DGSOM to launch an enhanced transgender health session for second-year medical students, building upon existing content of a doctoring class. This session featured a didactic lecture by a subject matter expert, a diverse transgender and non-binary patient panel, and small group discussions between students, faculty, and patient panel members. Evaluation of this updated curriculum demonstrated that it was well-received by students and led to significant changes in knowledge, attitudes, and perceived readiness to work with transgender patients. This session was delivered again to the next two second-year student cohorts during the following two academic years (2019 - 2020 and 2020 - 2021). Due to COVID-19, the 2020 - 2021 session and all of its components were provided to students virtually by Zoom. Over the course of these three academic years, over 500 medical students participated in the enhanced transgender health session.

Currently, the project team continues to work closely with UCLA DGSOM and its faculty as it rolls out a more thorough and school-wide curriculum redesign. The new curriculum is being rolled out in phases and includes additional LGBTQ health content, including over ten hours of class time dedicated to these topics during the first year of medical school alone. The project team has also been critical in the development, implementation, and evaluation of a pilot elective option for students that focuses exclusively on LGBTQ health and direct experience with LGBTQ patients.

Chicago: the Trans Accountability Project

Exploration: Two Community Conversations & Listening Sessions. In the first year, TAP steering committee hosted two Community Conversations, also known as listening sessions for the stakeholders who attended. Sixty-three community members and ten stakeholders attended the events while nine facilitators from the community and nine notetakers from stakeholder organizations assisted TAP in hosting the events. TAP integrated human-centered design principles into WCM as a framework to curate up to nine sets of four small-group activities (see Figure 1) and a collective "report-back" discussion that followed the activities. All materials were translated into Spanish, and one table at the first event was conducted in Spanish for two participants.

Planning based on findings. Based on TAP's analyses of the data, five insights were generated (36). After much discussion, the steering committee determined that employment would be the domain through which to focus intervention development for years 2 and 3. One element of the intervention would consist of a more downstream approach to improve and expand job-seeking and retention skills of Black and Latina transgender women. The other element would target stakeholders and a more upstream approach to expand employment opportunities and working environments for Black and Latina transgender women. At the same time each partner organization had its own particular employment services that were enhanced by TAP funding.

The COVID-19 pivot. Year two of TAP consisted of setbacks in the development of the intervention due to onset of global COVID-19 pandemic. The steering committee began year two with the development of an employment intervention logic model (see Figure 2) and a scan of local employment interventions accessible to Black and Latina transgender women. With the pandemic, however, partner organizations shifted the majority of programming from in-person to virtual formats in order to minimize staff and client exposure, expand access to COVID-19 testing, and also to ensure services continued to reach community members during mandated closures of community spaces.

Implementation: the TAP Employment Program and stakeholder engagement. In year three, the TAP Steering Committee completed the design of the employment intervention and launched the pilot. The pilot consisted of eight, two-hour monthly modules with a corresponding monthly speaker series; in total, there were 16 Zoom sessions on eight employment-focused topics. In the first month's module, a visioning activity was conducted with participants to discuss their dream jobs. The first speaker was an elder and leader in Chicago trans communities who had been conducting HIV prevention for over 30 years. She also talked about what her work had been like during COVID-19 and how she maintained accessible HIV testing. In month seven, participants focused on job applications and engaged in mock interviews.

With limited recruitment efforts, five participants ranging in age, race and ethnicity, transition status (i.e., various combinations of legal, social, and medical transition) as well as geographic locations, enrolled and have attended the pilot virtually. The TAP steering committee members typically attended each module, contributing to the activities and discussions, as well as the speaker series. These sustained group meetings between participants and steering committee members, plus speakers from the community, help create a supportive network for the participants in terms of finding and retaining employment. Partner organizations also provided additional employment services supported by TAP resources to community members not enrolled in the program.

Beyond the employment pilot, stakeholders are periodically engaged to prioritize collectively any organizational, local, and state policies that may help transform employment or healthcare barriers into facilitators. For example, TAP steering committee members and stakeholders participate in ongoing workgroups to change policies and advance state legislation around background checks, name changes, as well as the decriminalization of sex work.

Inner and Outer Settings: Organizational Capacities and Funding Mechanisms

The organizations and institutions supporting these efforts varied greatly in terms of capacities to address transgender structural vulnerability. As such, the larger the institution, the less focused the structural competencies may be on transgender health inequities and, further, the smaller the organization, the less able to commit sustained staffing to the intervention development or implementation. In Chicago, for example, the vastly different sizes, locations, and mission and values of the partner organizations posed some challenges to consistent and sustainable participation on the TAP steering committee and the pilot intervention.

Los Angeles inner and outer settings. Initial funding for the Los Angeles Town Hall event was provided by the Tawani Foundation and the California HIV/AIDS Research Program through the UCLA Center for AIDS Research Health Disparities Core. Additional supplementary funding was provided by the UCLA AIDS Institute in order to implement the recommendations derived from data and analyses generated at the Los Angeles Transgender Town Hall.

Chicago inner and outer settings. The TAP steering committee formed as a result of a grant award to address structural racism in Chicago in order to expand access to HIV prevention and care. TAP member organizations had proposed to improve access to HIV prevention and care for Black and Latina Transgender Women using the steering committee model as the core driver to intervene at multiple levels - group, organizational, community, and structural. However, one organization took the lead in the proposal development and submission, and, when funded, the TAP steering committee had less than 12 weeks to establish trusting interpersonal and organizational relationships and to plan and host two community conversations and stakeholder listening sessions.

Discussion

Adapting EPIS and the Health Equity IS frameworks to describe and compare our exemplary cases (25,26) illuminated the ways in which community engagement drove these multi-level interventions to address and expand access to care and resources for transgender individuals and communities in Los Angeles and Chicago. Design, implementation, and dissemination of interventions to improve transgender health equity required input, guidance, and participation from trans communities. Considering the similar starting points and the very divergent interventions that emerged from the work of the two steering committees, it is clear that there are numerous inflection points for community engagement but also for meaningful intervention. We propose a dissemination and implementation framework for transgender health equity to guide future intervention development, implementation, dissemination, and adaptation (See **Figures 3 and 4)**. Our exemplary cases bring into relief key insights that we transform into recommendations here.

Bridging & Innovations: Steering Committees

Transgender health equity implementation practice and science benefits from a steering committee model at the root of innovating and bridging interventions. A steering committee of key stakeholders (37) - either entirely or in part from transgender communities as well as from community-based or stakeholder organizations - does not simply provide posthoc reflection or opportunities for prototyping with the priority population as a community advisory board might. Rather, a steering committee directs key aspects of intervention characteristics and scope. Notably, the professional relationships and networks fostered on the steering committee between partner organizations and between trans and cisgender stakeholders also drive equity across inner and outer settings and help ensure trans health equity is centered and elevated as intervention development, innovation, and implementation unfold at different levels.

Implementation of interventions that expand access to care for marginalized populations often encounter barriers related to provider bias and discrimination, patient and community mistrust of medicine, and geographic inaccessibility (36,38). Both steering committees helped circumvent these potential barriers with the recognition of their respective intervention capacities but also by including a range of transgender voices to participate in assessment design, data collection and analysis, and co-create or guide subsequent intervention development and implementation. In the case of Los Angeles, the transgender panel and small group discussion components of the UCLA gender-affirming curriculum highlighted transgender perspectives and their unique experiences navigating healthcare. These narratives provided concrete examples of various ways that good intentions can be experienced as provider bias, gatekeeping, and discrimination; alternatively, they also illuminated how an intersectional lens can mitigate those biases and provide a basis of solidarity or alliance – between a cisgender provider and a transgender patient who are both immigrants, for example.

The TAP steering committee determined that employment should be the focus of their intervention in order to impact upstream forces that limit Black and Latina transgender women's access to healthcare. In the U.S., employment-based health insurance and stable incomes are critical to access quality healthcare in addition to other key resources like housing. The innovation is that the steering committee and the employment intervention operate at multiple and intersectional levels: employment and healthcare policy, community and organizational networks, and the TAP Employment Program pilot. Specifically, the TAP's intervention targets 1) state-, local-, and organizational-level employment policies, 2) continuous network and community infrastructure-building, and 3) the employment skills and training of Black and Latina transgender women. This community-engaged, intersectional approach is a novel way to improve transgender health equity.

Inner and Outer Settings: Building Organizational, Community, and Funder Capacity

Our cases highlight why community-engaged intervention development and implementation require substantial investments in time, organizational capacity building, and leadership development. The organizations represented by steering committee members differed vastly in size, capacity, annual operating budgets, and mission and values. Although the grants funding these two cases were both tied largely to HIV prevention dollars, the Chicago case had a far larger and longer grant duration compared to the Los Angeles case. However, when dispersed across four partner organizations in Chicago with numerous deliverables each year, the funding felt less impactful.

To promote trans health equity, traditional philanthropic and state funding mechanisms require restructuring to support community engagement and facilitate more flexible and collaborative transgender community partnerships. As implementation scientists have noted in other domains (39,40), grant requirements should be clearly aligned with the goals of trans health equity; for example, new funding streams might operationalize trans inclusion, leadership development, capacity building at specified levels not only on the grantee teams but in funder study sections and program offices. Shared resources such as grant writing trainings, proposal templates, participatory budgeting, and submission infrastructure for award applications are needed so that transgender community partners can participate in the pre-award process more equitably (39,40).

Limitations

This study has several limitations. The two cases had very different funding parameters, budgets, and timelines for deliverables; consequently, the steering committee structures and organizational partnerships differed. As a comparative case study, there were no quantifiable measures to benchmark or validate. Although these findings cannot be generalized, the themes resonate broadly across trans communities in the U.S. Transgender underemployment and underrepresentation in IS, caring professions, public health, and academia writ large, may be associated with the lack of

evidence-based, trans-focused interventions and the lack of advancement in trans health equity via implementation practice and scientific research. We also cannot measure the downstream effects, for example, of the gender-affirming medical care curriculum that has grown over the last four years at UCLA.

Conclusion

This study demonstrates that an IS framework for trans health equity can provide guiding principles and, with additional resources and praxis, quantifiable benchmarks and validated measures of trans health equity. Trans knowledge and experiences – from community members, scholars, advocates, funders, and activists emanating from the intersections of trans health inequities – are critical touchstones to address trans health equity.

Abbreviations

COVID-19 - Coronavirus Disease 2019

EPIS - Exploration-planning-implementation-sustainment

HIV - human immunodeficiency virus

IS - Implementation science

LGBTQ - Lesbian, gay, bisexual, transgender, and queer

TAP - Trans Accountability Project

UCLA - University of California-Los Angeles

CFAR - Center for AIDS Research

DGSOM - David Geffen School of Medicine

WCM - World Café model

Declarations

Ethics approval

The institutional review board for human subjects research at Howard Brown Health Center and at University of California-Los Angeles waived the respective community-engagement projects from IRB-approval deeming that the projects did not constitute research.

Consent for publication

Not applicable

Data availability statement

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

Competing interests

The authors declare that they have no competing interests.

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Author contributions

All members of the author team serve or served on the steering committees in Chicago and/or Los Angeles. HT contributed to conceptualization, background research, study design, analysis, and was lead writer and editor of the draft manuscript. AC contributed to background research, to the original drafting of the manuscript and its final review and edits. RO, TMP, AWQ, ME, AK, LK, and CR provided feedback on the original draft. AH and

NM contributed to conceptualization, funding acquisition, and manuscript review and feedback.

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Supplementary

The Appendix is not available with this version.

Figures

Figure 1

The UCLA CFAR steering committee logic model to develop a trans-affirming medical curriculum

Figure 2

Trans Accountability Project (TAP) logic model as a multi-level employment intervention, including the group-level TAP Employment Program.

Figure 3

An adaptation of the EPIS framework for community-engagement and trans health equity; implementation of the UCLA CFAR Trans Health Project (2016-2021).

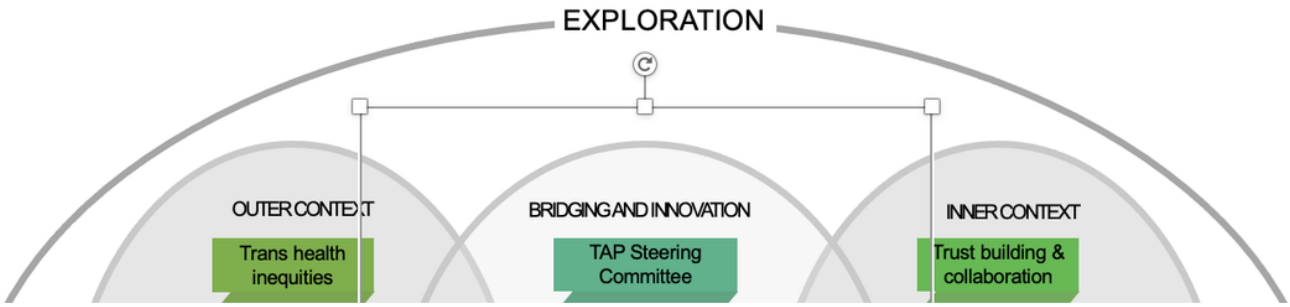

Figure 4

An adaptation of the EPIS framework for community-engagement and trans health equity; implementation of the Trans Accountability Project and the TAP Employment Pilot (2019-2021).