

# Advancing health equity through a theoretically critical implementation science

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## Abstract

While implementation science is driven by theory, most implementation science theories, models, and frameworks (TMF) do not address issues of power, inequality, and reflexivity that are pivotal to achieving health equity. Theories used in anthropology address these issues effectively and could complement prevailing implementation science theories and constructs. We propose three broad areas of theory that complement and extend existing TMF in implementation science to advance health equity. First, theories of postcoloniality and reflexivity foreground attention to the role of power in knowledge production and to the ways that researchers and interventionists may perpetuate the inequalities shaping health. Second, theories of structural violence and intersectionality can help us to better understand the unequal burden of health disparities in the population, thereby encouraging researchers to think beyond single interventions to initiate partnerships that can impact overlapping health vulnerabilities and influence the upstream causes of vulnerability. Finally, theories of policy and governance encourage us to examine the social-political forces of the “outer context” crucial for implementation and sustainability. The incorporation of critical theories could enhance implementation science and foster necessary reflexivity among implementation scientists. We contend that a theoretically critical implementation science will promote better science and, more importantly, support progress toward health equity.

## Keywords

Implementation science, Theory, Health Equity, Anthropology, Evidence-based intervention

## INTRODUCTION

The advancement of health equity and the elimination of health disparities is increasingly a goal of implementation scientists [1–4] that requires critical theoretical tools to accomplish. Theory, defined as a set of general concepts and principles that explain and predict phenomena, has always guided implementation science work, drawing from the interdisciplinary foundations of the field itself [5]. Yet, a more sophisticated application of theory can generate change [6] and enable the analysis of the complex social environments that affect the uptake of interventions [7–10]. Moreover, theory can productively critique the core tenets of implementation science, such as evidence and context [11].

## Implications

**Practice:** A theoretically critical approach to implementation science will generate evidence and programs more capable of advancing health equity.

**Policy:** Health equity can be furthered through applying critical theories to reshape policy and systems processes, not just health interventions.

**Research:** The capacity of implementation science to achieve health equity will be advanced by a critical theoretical foundation that evaluates structural inequality, power, and reflexivity.

Prevailing theories, models, and frameworks (TMF) in the field, however, do not necessarily address the multiple dynamics impacting health equity that are at play in implementation research. Recent implementation science tools to promote health equity focus on understanding the power dynamics shaping clinical interactions [3], designing multicomponent interventions tailored for populations experiencing systemic disadvantage [2], and strengthening policies to improve the social determinants of health [4]. Despite these promising developments, many TMF still consider the upstream determinants of health (e.g., food availability and poverty) beyond the purview of implementation science (e.g., [2]) when they may actually fall within the scope of our efforts to ensure equitable evidence-based interventions. We echo concerns raised by colleagues about the “ethnocentric nature” of analysis in our field, which almost exclusively employs theories narrowly designed around Western governance to understand diverse implementation settings globally [1]. Finally, we challenge the health equity scholarship in our field to critically appraise the evidence base that orients our work: to expand to include interventions with greater impact on the overlapping vulnerabilities in the diverse communities where we work [10] and to address the limitations of its Western biomedical focus [12].

As anthropologists and implementation scientists, we argue that critical theories commonly used by anthropologists offer insights that extend and complement existing implementation science TMF in the pursuit of health equity. These theories advance the goal of health equity by assessing the *structural factors* that shape our research, the health and service systems in which we apply our insights, and the lives of the people meant to benefit from interventions. These structural factors explain not only what makes implementation successful but also why some people are so much sicker than others and why barriers to evidence-based intervention may be greater in certain delivery settings. Theories used in anthropology are uniquely suited to examine these structural factors by interrogating the types of questions we ask in implementation science, the research designs framing our investigations, and the methods we employ.

The concerns illuminated by these theories will be familiar to many implementation scientists who acknowledge the need for complex thinking about the context of interventions and their implementation [1,2,4,6,7,13] and the need to fully incorporate the perspectives of implementation scientists who are people of color or members of underrepresented populations [14,15]. Like the recent societal calls made to reckon with the global legacy of structural racism, these theories may provoke discomfort and debate. However, we contend that we must embrace debate rather than prioritize consensus in implementation science.

In this commentary, we propose three domains of critical theory relevant to implementation research on health equity: (a) postcoloniality and reflexivity; (b) structural violence, intersectionality, and related theories; and (c) theories of power and governance. In each area, we briefly outline limitations in existing applications of TMF in implementation science. We then propose critical theories from the social sciences and humanities that can add nuance and rigor to the work of implementation scientists, offering examples that illustrate how these theories can be operationalized in research. We contend that a more expansive engagement with such theory is imperative, not for theory's sake but for its potential to generate the complex understandings necessary to produce wide-scale change.

#### POSTCOLONIALITY AND REFLEXIVITY: RECONSIDERING EVIDENCE AND ENGAGEMENT

The core of implementation science is the evidence base for the interventions we promote. This evidence base is cumulative and meant to be self-correcting as new evidence is gathered or synthesized [16]. As researchers in implementation science work to translate the evidence base into real-world settings, we solicit perspectives and participation at multiple levels, from system- and policy-level administrators,

to frontline providers of health interventions, to community members [17].

Nevertheless, evidence and implementation are driven by social processes and relationships in an unequal world. This has generated an evidence base with significant gaps about what works for people of color, diverse genders and health statuses, and across cultures [16,18], driven in part by structural factors limiting academic diversity and the amplification of diverse research. Likewise, the key partners with whom we work to facilitate implementation, like researchers themselves, have social positions that shape our interpretations of intervention outcomes—not just when outcomes improved but what outcomes were *not* measured and what participants were *not* included. While implementation scientists work with a broad range of stakeholders, we are more likely to work with existing “champions” of interventions in powerful positions [19] than with those who may have reasonable doubts about our work. Furthermore, the efforts of implementation scientists in global health can expand access to important technologies. However, health development work often emphasizes technical solutions (e.g., access to toilets and handwashing) with less attention to the historical context of colonialism and continued domestic and global inequalities (e.g., poverty and sanitation infrastructure) [20,21]. Additionally, many medical development projects rely upon Western medical categories that may have little cultural relevance in diverse global settings and can delegitimize other vital forms of healing [22,23] or may be used to control particular populations and gain profit [22,23]. As implementation scientists, we must consider our own role as powerful actors in producing and promoting evidence and as gatekeepers to the resources offered by health projects. Failing to do so can threaten our efforts to implement interventions, invalidate our scientific findings, and, most importantly, perpetuate social and economic inequalities.

Anthropologists have grappled with these issues as we have confronted our discipline's central role in producing knowledge that has furthered racism and colonialism, negatively impacting the communities that have enabled our research in the first place [24,25]. We propose theories that can help implementation scientists to more holistically assess context, evaluate the strength of the evidence base, interrogate power within the implementation planning process, and measure unforeseen impacts of dissemination. *Postcolonial theory* [26,27] identifies the legacy of colonialism throughout the world as manifested in, for example, structural racism and xenophobia. Importantly, the postcolonial theory emphasizes how the production of scientific and historical knowledge has been the domain of powerful and largely white, Western, and male actors. As such, scientific enterprises have often contributed to

the subjugation of racial and ethnic minority communities and women. Even well-intentioned participatory approaches can reinforce power asymmetries by co-opting community values to serve external agendas [28], while the notion of the “community” itself may perpetuate the idea that populations are homogenous and static [29]. These dynamics are especially pertinent in health and development efforts in the Global South and among populations of color in the Global North. Postcolonial theorists have shown how development projects perpetuate ideologies about “backwardness” while largely failing to ameliorate inequalities [30]. Accordingly, *reflexivity* [31] prompts researchers to thoughtfully analyze our own positions of power within this difficult social context. This involves recognizing the limitations of our individual perspectives and Western biomedical frameworks while considering the potential that even well-intentioned research might alienate or do harm to its “subjects.”

These theories should prompt implementation scientists to both expand our efforts at stakeholder engagement and to be cautious about the damaging power relations that we might inadvertently perpetuate. We must ask questions such as: who and what is defined as the “problem” to be solved and what types of agendas are served by this definition? What do implementation scientists from resource-wealthy countries or institutions have to gain in this work and what might people in local settings stand to lose? How should nonbiomedical understandings of health and healing be included in our efforts in a given context? In Table 1, we illustrate how these theories can be operationalized in implementation science core domains, research design, and methods.

For example, a study of behavioral healthcare reform in New Mexico that purported to increase the voice of “consumers” by incorporating persons with lived experience of serious mental illness, their families, and representatives from community organizations [36] illustrates challenges with power inequalities. The state government sought to tap the perspectives of these stakeholders to enhance planned behavioral health system changes, driven by ideals from the mental health recovery movement to centrally involve the expertise of people using services. Yet, community consultations often aggravated existing tensions between residents of predominantly wealthy, white communities and those of low-income minority areas who were disproportionately impacted by mental health concerns and scarcity of services. Decision-making largely reverted to people already in positions of power (i.e., state officials and healthcare administrators). As this study shows, soliciting participation from diverse stakeholders does not sufficiently guard against the reproduction of harmful power dynamics in implementation contexts, especially in places, such as New Mexico, where historical colonial relationships

have entrenched contemporary socioeconomic inequities [37]. Engaging with postcolonial theory could have generated more sensitive methods of collecting community input, in addition to fostering steps to address long-standing inequalities in behavioral health leadership.

While implementation scientists alone cannot undo the historic inequalities that shape the contexts in which we work, we must ensure that our intervention efforts address such inequalities in our research teams and agendas. Our implementation research must interrogate concepts of community participation and employ practices of reflexivity to evaluate how stakeholders’ social position influences their involvement in implementation efforts as exemplified in the modified theoretical domains framework [32]. Several efforts are underway in healthcare organizations and institutions (e.g., Veterans’ Administration and Patient-Centered Outcomes Research Institute) to more meaningfully engage multilevel stakeholders in every stage of the research process [33–35].

#### **STRUCTURAL VIOLENCE, INTERSECTIONALITY, AND RELATED THEORIES: UNDERSTANDING AND ADDRESSING HEALTH DISPARITIES**

Adaptation of health interventions to meet the needs of diverse groups is a key focus of implementation science, as evidence-based programs are increasingly exported across the globe. Adaptations largely focus on broad contextual factors pertaining to implementation contexts or target populations. These factors are often glossed as “cultural appropriateness” or “acceptability” but include such varied elements as language, health beliefs, socioeconomic status, and geographic constraints. Few adaptation efforts employ any type of conceptual framework that explicitly accounts for these elements [38]. Instead, implementation science approaches illustrate a tendency to construct communities and cultures as largely homogenous groups with static traits and shared beliefs (e.g., [3,39]). This tendency ignores the multiple influences that shape how health interventions are received, especially within groups that have been socially marginalized and historically disenfranchised, including people of color, sexual and gender minorities, women, and persons with disabilities. Conceptual models predominating in the field lack detail on how to account for and tackle the persistently unequal burdens of poor health borne by these groups [40–42], as the evidence base focuses overwhelmingly on individual-level and biological factors at the expense of social, historical, and environmental circumstances [43]. Increasingly, implementation scientists are revising their approaches to centrally address disparities through investigating differential barriers to access [44], including end users of interventions in the implementation process [44], amplifying

Table 1 | Reconsidering evidence and stakeholder engagement

Implementation science tenets	Unintended consequences	Theories to further equity
<ul style="list-style-type: none"> <li>The evidence base is cumulative and self-correcting.</li> <li>Multilevel engagement should guide the selection and implementation of health interventions.</li> </ul>	<ul style="list-style-type: none"> <li>Health interventions can also be used to control and gain power.</li> <li>Participatory approaches can inadvertently reinforce existing hierarchies.</li> </ul>	<p>Postcolonial theory: scientific and medical knowledge has developed in concert with colonialism; international health development projects can further these historic relationships.</p> <p>Reflexivity: researchers' critical reflection on their power.</p>
Examples of operationalizing theories across core domains and processes		Recommendations for methods and research design
<p>Context assessment</p> <ul style="list-style-type: none"> <li>How do Western biomedical disease concepts need to address diverse concepts of health and healing?</li> <li>What is the history of health development in the region and whose perspectives have been excluded?</li> </ul> <p>Intervention characteristics: evidence strength and quality</p> <ul style="list-style-type: none"> <li>What processes impact how interventions developed in the Global South are included within the global evidence base?</li> <li>What community-driven outcomes need to be elevated for consideration in the evidence base (e.g., recovery, autonomy, and respect)?</li> </ul> <p>Process: planning and engaging</p> <ul style="list-style-type: none"> <li>In the implementation planning phase, how does the power of different stakeholders influence which evidence-based interventions are chosen for a given context?</li> </ul> <p>Dissemination</p> <ul style="list-style-type: none"> <li>What effects does intervention scale-up in global settings have on indigenous treatment providers?</li> </ul>		<p>Research design</p> <ul style="list-style-type: none"> <li>Examine structural factors that shape the evidence base for particular interventions, including equity in the availability of resources for investigators to design trials with adequate power and fidelity</li> <li>Critically analyze processes to select interventions by assessing the power position of intervention champions (e.g., [19]), role of cost, and determination of feasibility</li> <li>Employ structural theoretical frameworks to link health behavior change interventions to historical inequalities (e.g., [21])</li> </ul> <p>Relevant conceptual frameworks and methodological tools</p> <ul style="list-style-type: none"> <li>Theoretical domains framework with an intersectionality lens evaluates stakeholders' power and position during implementation planning [32].</li> <li>Naming researchers' assumptions and identifying our differences can invite a systematic accounting of how our study designs and project decisions involve power relationships [32–35].</li> <li>Engage broader groups of stakeholders (e.g., end users) in defining outcomes for measurement and measuring their effects [35]</li> <li>Engage in “power analysis” of implementation partnerships to analyze how collaborating with different community partners will impact reach</li> <li>Ensure that the collection and analysis of qualitative data captures the range of reactions to intervention appropriateness in order to identify unequal impacts</li> </ul>

implementation strategies for groups that are socially marginalized [2–4,45], conceptualizing culture with complexity [46], and designing multi-level intervention strategies that target policy and social factors [47].

The use of critical social scientific theories in implementation science can deepen our analyses of the social, economic, and political forces that influence health equity and shape the ability of patients and others to engage meaningfully in health interventions. Theories of structural violence and competency, syndemics, and intersectionality offer insights to improve the effectiveness of clinical interventions

and enhance their impact through upstream interventions. *Structural violence* draws attention to social and economic patterns that cause violent harm, such as institutional racism, poverty, and discrimination, that expose some people disproportionately to health risks and constrain their ability to meet their own basic needs [48]. *Structural competency*, in turn, tackles such vulnerabilities via “prescriptions” of social and economic supports and encourages provider engagement in transforming the systems that contribute to inequities (e.g., through policy advocacy) [49]. When practitioners and researchers cultivate “structural humility,” they recognize the limitations

of their expertise and partner with other stakeholders to ameliorate these gaps [50]. New methods in implementation science that incorporate an ethnographic lens, such as periodic reflections [51], can foster self-reflection to highlight expertise gaps.

Structural approaches are complemented by *syndemic theory* [52], which draws attention away from individual diseases to highlight how risks cluster and compound under harmful social conditions (e.g., stress and food insecurity). Similarly, *intersectionality theory* [53] illuminates how violent social structures intersect, exposing some populations (e.g., sexual and gender minorities of color) to multiple forms of discrimination and stress that can compromise their health. Together, these theories underscore

the limitations of individually focused health interventions, as well as the complications of translating programs designed for privileged groups (e.g., white, middle-class Americans) to groups at higher risk for poor health outcomes [54].

These theories, summarized in Table 2, are essential for promoting health equity by centrally addressing the outer setting of patient needs and resources, evaluating the relative advantage of interventions for communities experiencing disparities and targeting intervention adaptations toward equity. They compel us to thoroughly consider patients who have been inadequately theorized in implementation science as those not reached (e.g., [40]) or merely as having “needs” (e.g., [41]), prompting

**Table 2** | Understanding and addressing health disparities

Implementation science tenets	Unintended consequences	Theories to further equity
<ul style="list-style-type: none"> <li>Interventions must be adapted to be culturally acceptable and appropriate.</li> <li>Increasing the uptake of existing interventions from the evidence base through proper implementation will decrease health disparities.</li> </ul>	<ul style="list-style-type: none"> <li>Communities and cultures can be constructed as homogenous groups.</li> <li>Strengthening implementation alone can distract from fundamental inequities in health.</li> </ul>	<p>Structural violence: exposure to social and economic forces that make people sick</p> <p>Structural competency: health systems and providers actively address structural violence</p> <p>Syndemics: clusters of diseases that result from shared risk factors.</p> <p>Intersectionality: social and economic forces intersect to make certain populations especially vulnerable</p>
Examples of operationalizing theories across core domains and processes		Recommendations for methods and research design
Outer setting: patient needs and resources		Research design
<ul style="list-style-type: none"> <li>What social and economic forces generate the greatest burden of sickness in target communities? Are some interventions or implementation strategies better suited to ameliorate these forces?</li> <li>What disease clusters are most common in the target community?</li> </ul>		<ul style="list-style-type: none"> <li>Test intervention strategies that address intersectional risks [45]</li> <li>During intervention planning stage, examine relative advantage by assessing how intervention characteristics will impact who is reached and retained</li> <li>Identify nontraditional stakeholders (e.g., urban planning and food provision) to create structurally focused implementation strategies</li> </ul>
Intervention characteristics: relative advantage		Critical assessment of reach and retention
<ul style="list-style-type: none"> <li>Does the intervention selected address historical and continued inequalities shape the health problem being targeted?</li> <li>Does the intervention include unstated cultural values (e.g., model of recovery premised on individualism) or assumptions about engagement within healthcare (e.g., assumes trust in providers)?</li> </ul>		Relevant Conceptual Frameworks and Methodological Tools
Adaptation		<ul style="list-style-type: none"> <li>The ADAPT-ITT planning framework explicitly involves people who will use interventions throughout planning and evaluation [44].</li> </ul>
<ul style="list-style-type: none"> <li>When should implementation efforts address multiple illnesses?</li> <li>What other forms of marginalization can adaptation address (e.g., stigma, discrimination)?</li> <li>What system-level implementation strategies are needed to decrease discrimination that serves as a barrier to all healthcare (e.g., data collection and structuring of space)?</li> </ul>		<ul style="list-style-type: none"> <li>The Behavioral Change Wheel [47] is well suited to combining intervention approaches to address interactions between healthcare, environment, and policy.</li> <li>The Cultural Framework for Health [46] can identify cultural values and assumptions in interventions and communities.</li> <li>Diversify research teams and research oversight committees to ensure that implementation questions address structural risks and needs of particularly vulnerable groups</li> <li>Periodic reflections are an ethnographic tool [51] that can be used to document the differential experience of the intervention for practitioners and community members throughout implementation.</li> <li>Collect more data on health outcomes and reach of interventions by intersectional identity in order to identify where additional intervention needed [45,55]</li> </ul>



questions such as: Do the patients we want to reach experience multiple illnesses and forms of marginalization [3,45,55]? What structural factors beyond the clinic make patients sick in the first place, constrain their ability to be included within interventions, and limit the long-term effectiveness of any treatment received? What partnerships can implementation scientists forge to address these structural factors? These theories can be operationalized through TMF like ADAPT-ITT [44], which includes a central role for communities in intervention planning; the Behavior Change Wheel [47] that generates multi-level implementation strategies; and alongside tools like the Cultural Framework for Health [46].

A study of care delivery for transgender and gender-diverse (TGD) patients in emergency departments underscores the importance of employing these theories within implementation science [55]. Guided by a conceptual framework including theories of intersectionality, syndemics, and structural violence, investigators illuminated the confluence of risk factors and their upstream causes for TGD people. TGD patients are affected by multilevel harms that include intersecting individual-level health risks, such as high rates of mental distress, substance use, and HIV, as well as experiences of discrimination that cause patients to delay or avoid care until their conditions have worsened. These harms are compounded by health care inadequacies, such as limited training, negative attitudes among some staff, and the insufficient collection of gender identity data. In addition, TGD people experience structural violence at the societal level, including discrimination in housing and employment that aggravates their poor physical and mental health. While promising evidence-based interventions offer methods to improve health care for underserved populations broadly, investigators were guided by structural competency to develop TGD-specific, structural adaptations, such as promoting professional development among staff, adopting gender-inclusive record-keeping systems, and deploying allies to advocate for nonmedical resources. The theories we describe here offer a promising path to conceptualize structural interventions and formulate implementation strategies that effectively engage with structural inequalities.

#### **THEORIES OF POLICY AND GOVERNANCE: TARGETING THE EXTERNAL CONTEXT**

Popular conceptual models in implementation science, such as the Consolidated Framework for Implementation Research (CFIR) [41] and the Exploration, Preparation, Implementation, and Sustainment (EPIS) model [42] commonly approach institutional systems and policies as broad “external contextual factors” shaping the implementation of interventions. Such factors include

regulations, reporting, legislation, funding, and advocacy [41,42]. Although implementation scientists have used organizational theories to model the external context [56], scholars of human service organizations argue that organizational theories developed from business management may be ill-equipped to explain how services are designed and delivered [57,58]. Existing models in implementation science usefully define important system and policy domains impinging on implementation, yet these approaches largely accept these domains as self-evident and classify many as unmodifiable [59]. Implementation planning thus focuses on operating within the existing system and policy environment but rarely considers the production of this environment to be a social process that implementation scientists can influence through their work.

In contrast, anthropologists have emphasized the importance of “studying up” [60] or studying institutional practices as culture. Theories of *governance* engender a clearer view of how policy influences service systems and organizations, offering implementation scientists valuable tools to analyze and act upon system levels. Governance theorizes how policy is generated, enacted, and contested, allowing scholars to show that policy is the product of historical processes, relationships, and values. These, in turn, centrally influence how policymakers decide which evidence they support, which interventions are delivered and by whom, and which populations are eligible to receive them [61]. One area of intensive examination by social scientists is the shifting of social provisions to the private sector and associated deregulation (a trend broadly called “neoliberalism”) that has characterized political-economic theory in the USA and elsewhere, particularly since the 1970s [62]. In addition to examining the ideologies that shape policy, social scientists often draw on Michel Foucault’s [63,64] concepts of *governmentality* to analyze how people are measured and managed through *technologies of power* and the effects of these practices. For example, the privatization of human services has coincided with new standards of management, forms of accounting, and technologies of supervision, such as contract monitoring and auditing [65]. Rather than accepting these practices as part of the existing context of implementation, these theories reveal how such techniques are implemented in the service of “accountability” and include ideological assumptions about the susceptibility of public services to corruption. Yet, accountability practices vastly increase the burdens of time, labor, and financial and legal risk for service providers [66].

Theories of governance can prompt implementation scientists to examine the malleability of the outer context. Per Table 3, these theories encourage greater consideration of policy-level interventions, question the processes that generate policies

**Table 3** | Targeting the processes of policy and governance in the external context

Implementation science tenet	Unintended consequences	Theories to further equity
<ul style="list-style-type: none"> <li>Understanding broad external contextual factors enables implementation efforts</li> </ul>	<ul style="list-style-type: none"> <li>Health systems and policies are accepted as given rather than as processes</li> <li>Policy environments rarely studied</li> </ul>	<p>Governance: policy results from historical processes and values</p> <p>Governmentality, technologies of power: government and business practices to measure and manage populations deliberately and inadvertently exert power</p>
Examples of operationalizing theories across core domains and processes		Recommendations for methods and research design
<p><b>Intervention characteristics</b></p> <ul style="list-style-type: none"> <li>What policy-level interventions are appropriate for implementation scientists to take on?</li> </ul> <p><b>Outer context: external policies</b></p> <ul style="list-style-type: none"> <li>What implicit expectations around performance may be embedded in intervention or contracting rules? Do their expectations have different impacts on stakeholders (e.g., by size, urban/rural status, and community served)? (e.g., [68,69])</li> <li>What categories are not measured as targets of intervention (e.g., trust in providers and hours of family caregiving) that are relevant to patient-centered care?</li> </ul> <p><b>Outer context: interorganizational relationships</b></p> <ul style="list-style-type: none"> <li>How do contracting rules (e.g., collaboration requirements and scope of work) impact the relationship between organizations delivering interventions over time? (e.g., [69])</li> </ul> <p><b>Dissemination</b></p> <ul style="list-style-type: none"> <li>How is the uptake of particular classes of interventions (e.g., community prevention and precision medicine) associated with changes in government and business priorities?</li> </ul>		<p><b>Research design</b></p> <ul style="list-style-type: none"> <li>Identify, refine, and test implementation strategies that manipulate the outer context (e.g., testing how different types of contracts impact organizations' financial health over time)</li> <li>Examine how historic policy shifts (e.g., shifting social services to delivery by private sector) impact the type of interventions delivered and fit for community needs</li> <li>Measure the burden of accountability practices on provider turnover, organizational sustainability, patient care, and identify alternative modes of oversight</li> </ul> <p><b>Relevant conceptual frameworks and methodological tools</b></p> <ul style="list-style-type: none"> <li>Consolidated Framework for Implementation Research can be expanded to capture the relationship between outer setting and inner setting processes of governance [70].</li> <li>The Policy Ecology of Implementation framework names explicit implementation strategies to reshape different levels of policy [71].</li> <li>Employ data sources that capture the decision-making and implementation-relevant activities of policymakers and administrators, such as triangulated interview data, policy document data, and policy development meeting minutes to identify unequal impacts on stakeholders (e.g., [70])</li> <li>Historical approaches to trace the development of health policies and systems in order to understand and ameliorate their biases</li> </ul>

and intervention priorities, and attend to the rules shaping the sustainability of implementing organizations (e.g., [67,68]). What ideologies underpin policy and governance? How do individuals in positions of power select or ignore evidence? How do technologies of measurement privilege some health risks and populations for intervention while de-emphasizing others?

Several of these questions have arisen in studies of human services. For example, child welfare has been transformed in the past three decades by an emphasis on personal responsibility, the delegation of mandated public benefits to be delivered by private organizations, and relentless funding cuts [70,72]. Scholars Marwell and Calabrese [73] theorize that, in reassigning the delivery of mandated public benefits (like child welfare services) to private organizations, governments have consistently

failed to cover the full costs of those services, ultimately undermining their quality and availability, especially for citizens that lack the resources to seek them elsewhere. Engaging with technologies of governance can shed light on the ways that these financial burdens are built into how governments contract for the delivery of public services. Scholars who have embedded neoliberal theories of governance in their conceptual frameworks have been able to highlight the awkward balance that contracted community-based organizations make as they formulate cost-competitive bids. Bids must present organizations' capacity to deliver evidence-based services—including expensive systems of contract oversight—but these investments may preclude them from serving the hard-to-reach populations that may require more staffing costs [69]. Future studies can apply governance theories to develop

new contracting practices oriented toward equity and test their impact on organizations' capacity to reach diverse populations.

Theories of governance can be applied methodologically through increased use of data sources that capture decision-making and implementation-relevant activities of policymakers and health administrators [68,74] and through adapting TMF like CFIR and the policy ecology implementation framework [75] to directly address power inequalities and their impact on equity. As implementation scientists increasingly examine the development of large-scale infrastructure to support the delivery of evidence-based practices (e.g., [71]), they can apply theories of technologies of power to identify which outcomes are prioritized for improvement (e.g., fidelity and cost) and employ practitioner and community perspectives to determine other areas that infrastructure must support (e.g., childcare to enable engagement in care).

## CONCLUSION

We have argued that, without engaging with a broader range of critical theories that interrogate power and inequality, implementation scientists' impact on advancing health equity will be limited. Our argument contributes to a growing body of implementation science that employs social scientific theory to better understand the immensely complex social environments in which we seek to intervene [7,17,55,68,76]. Theories of postcoloniality and reflexivity force attention to the role of power in the production of knowledge, as well as how researchers and interventionists may inadvertently perpetuate inequalities by drawing on this biased evidence base. Structural violence and intersectionality theory can help us better understand the unequal burden of health disparities, encouraging us to think beyond single interventions to address overlapping health vulnerabilities and the upstream causes of disparities. Finally, theories of policy and governance encourage us to examine the social-political forces of the outer context decisive in implementation and sustainability. These theories reveal the opportunities to rethink the evidence base (what else could it include and how?), help decide which interventions are most worthy of implementation support (which make the most difference and why?), and expand our understanding of implementation strategies to include structural (i.e., outer context) change. With the explicit goal of health equity, theoretically critical implementation science pushes us to reconcile our implementation efforts with the inherently unequal social contexts in which we are attempting change.

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## Compliance with Ethical Standards

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