Distribution Agreement

In presenting this thesis or dissertation as a partial fulfillment of the requirements for an advanced degree from Emory University, I hereby grant to Emory University and its agents the non-exclusive license to archive, make accessible, and display my thesis or dissertation in whole or in part in all forms of media, now or hereafter known, including display on the world wide web. I understand that I may select some access restrictions as part of the online submission of this thesis or dissertation. I retain all ownership rights to the copyright of the thesis or dissertation. I also retain the right to use in future works (such as articles or books) all or part of this thesis or dissertation.

Signature: _____ _____ Date

Tracy K Smith

Approval Sheet

Structural Competency in Public Health and Social Service Organizations through the Lens of New Mexico

By

Tracy Smith
Master of Public Health

Executive Master of Public Health

_____ Laura Gaydos, PhD, Committee Chair

_____ Mary Alice Scott, PhD, Committee Member

Structural Competency in Public Health and Social Service Organizations through the Lens of New Mexico

By
Tracy Smith

B.A., Ethnic Studies, University of Colorado at Boulder, 2010
B.A., Integrative Physiology, University of Colorado at Boulder, 2009

Thesis Committee Chair
Laura Gaydos, PhD

Thesis Field Advisor
Mary Alice Scott, PhD

An abstract of
A thesis submitted to the
Faculty of the Rollins School of Public Health of Emory University
in partial fulfillment of the requirements of the degree of
Master of Public Health
in the Executive Master of Public Health Prevention Science program
2022

Abstract

While structural competency has been shown to be influential for medical education, public health and social service agencies around the world have not implemented the structural competency framework and training; there is a need to demonstrate how it can be effective in these settings. This study collected and analyzed qualitative data from five key informant interviews and one autoethnographic journal to answer the question, 'how have the New Mexico Human Services Department (HSD) and the Doña Ana Wellness Institute (DAWI) implemented structural competency in their organizations?' The study used the Consolidated Framework for Implementation Research (CFIR) as a guide for both data collection and analysis. Research objectives included developing case studies of the New Mexico Human Services Department implementation of structural competency and the Doña Ana Wellness Institute implementation of structural competency, developing templates of each implementation, describing similarities and differences between the two projects, and compiling lessons learned to enable other similar organizations to implement structural competency. The study created a preliminary foray into the implementation of structural competency in non-medical settings, specifically social service, public health, and governmental organizations and is the first to use CFIR as a guide for explaining structural competency implementation.

Structural Competency in Public Health and Social Service Organizations through the Lens of New Mexico

By
Tracy Smith

B.A., Ethnic Studies, University of Colorado at Boulder, 2010
B.A., Integrative Physiology, University of Colorado at Boulder, 2009

Thesis Committee Chair
Laura Gaydos, PhD

Thesis Field Advisor
Mary Alice Scott, PhD

A thesis submitted to the
Faculty of the Rollins School of Public Health of Emory University
in partial fulfillment of the requirements of the degree of
Master of Public Health
in the Executive Master of Public Health Prevention Science program
2022

Acknowledgements

I would like to thank my Thesis Committee
Laura Gaydos, PhD, Chair
and
Mary Alice Scott, PhD, Field Advisor
for their dedicated time, continued guidance, critique, and support in assisting me to meet this goal and receive my MPH.

I would like to thank my study participants at Doña Ana Wellness Institute and the New Mexico Human Services Department for spending time with me in this study.

I would also like to thank family and friends for their support and encouragement.

Table of Contents

Introduction 1

Background and Rationale 1

Problem Statement 2

Purpose Statement 3

Research Objectives 3

Significance 3

Acronyms 4

Operational Definition of Terms 4

Literature Review 6

Theoretical Framework: Consolidated Framework for Implementation Research (CFIR) 6

Defining Structural Competency 9

Foundations and Background 11

Applications of Structural Competency 16

Medicine and Medical Education 16

Other Contexts 24

Conclusion 30

Methodology 32

Introduction 32

Research Objectives 32

Research Design 32

Theoretical Framework 33

Population and Sample | Recruitment and Enrollment 37

Data Collection 38

Data Analysis Methodology 39

Results 43

Description of Participants 43

New Mexico Human Services Department Implementation of Structural Competency 45
Introduction 45
Planning 46
Engaging 55
Executing 56
What's Next 59
Doña Ana Wellness Institute Implementation of Structural Competency 59
Introduction 59
Planning 60
Planning/Engaging 70
Engaging 72
Executing and What's Next 77
Process Map of HSD and DAWI Implementation 80
Comparison 81
Similarities 82
Differences 89
Conclusions, Implications, Recommendations 92
Discussion of Key Results 92
Lessons Learned from Both Implementations 93
Strengths and Limitations 97
Implications 98
Recommendations 99
Conclusion 99
References 101
Appendix 107

Introduction

Background and Rationale

Failing to address systems of inequity worldwide is problematic and research suggests that without a structurally informed perspective, even the best-intentioned providers may be more likely to exacerbate or miss opportunities to address health disparities in their delivery of care (Neff et al., 2017). Further, "the data suggest that health equity is substantially enhanced when national governments accept responsibility for protection and promotion of human rights, thus guaranteeing universal provision to meet needs, including, for example, health care, sanitation and safe water, social protection, and education" (Blas et al., 2008). Government agencies lack a structurally informed perspective and therefore, often unintentionally exacerbate systems of inequality.

Examples of inequities exacerbated by government agencies are that in some states, Medicaid coverage does not include gender-affirming surgeries (Movement Advancement Project, n.d.). In other states, individuals awaiting citizenship are not eligible for many social service programs like food assistance (supplemental nutrition assistance program or SNAP) (National Immigration Law Center, n.d.). On an individual level, interactions between government staff members and the clients they serve may suffer due to stigma, bias, and discrimination. Government agencies often fail to include their clients in decisions that involve them. It is known that "successful engagement of target communities in decisions about how to address social determinants of health will increase the likelihood of policies and actions being appropriate, acceptable, and effective and can have a direct effect on individual health by raising people's sense of control over their lives" (Blas et al., 2008). One way government

agencies may understand the larger systems within which they operate is through the structural competency framework. Structural competency is defined by Metzl and Hansen as:

> the trained ability to discern how a host of issues defined clinically as symptoms, attitudes, or diseases (e.g., depression, hypertension, obesity, smoking, medication "non-compliance," trauma, psychosis) also represent the downstream implications of a number of upstream decisions about such matters as health care and food delivery systems, zoning laws, urban and rural infrastructures, medicalization, or even about the very definitions of illness and health (2014 p. 128).

The model is used to train healthcare providers to consider how forces or "structures" influence health outcomes beyond individual interactions. By shifting the focus beyond individual interactions to the structures that produce disparity in the first place, providers may be able to make more meaningful change when interacting with their patients (Metzl & Hansen, 2014). The structural competency workgroup (Structural Competency Working Group, n.d.) based in San Francisco has existed since 2014 and facilitates training in structural competency across the US and globally for health professionals. They are actively working on trainings for other audiences, such as pre-health students and medical professionals in training. Thus far, the framework has only been implemented with healthcare professionals. Government agencies around the world have not implemented the structural competency framework and training.

Problem Statement

While structural competency has been shown to be influential for medical education, government agencies around the world have not implemented the structural competency framework and training; there is a need to demonstrate how it can be effective in this setting.

Purpose Statement

To develop case studies of structural competency framework implementation and training in two public health/social service organizations in New Mexico (New Mexico Human Services Department and the Doña Ana Wellness Institute) in order to provide a model for other government organizations to follow.

Research Objectives

The study seeks to address the following research objectives:

1. Develop a case study of the New Mexico Human Services Department (HSD) implementation of structural competency
2. Develop a template of the HSD implementation that can be followed
3. Develop a case study of the Doña Ana Wellness Institute (DAWI) implementation of structural competency
4. Develop a template of the DAWI implementation that can be followed
5. Describe similarities between the two programs
6. Describe differences between the two programs
7. Describe lessons learned to enable other organizations in public health and/or social services to implement structural competency

Significance

In New Mexico in 2018, the Southern New Mexico Family Medicine Residency Program and the Doña Ana Wellness Institute organized a structural competency training, with one day for healthcare professionals and another for members of the community. Leaders from the New Mexico Human Services Department and Doña Ana Wellness Institute both attended the training and recognized the potential for use of structural competency in their organizations. These two applications outside of the traditional use in medical education are important case studies for the fields of public health and social services. For government entities with staff across the political spectrum, changing the frame from blaming those accessing services to considering the conditions individuals in need of services are forced to operate has significant

implications. Therefore, there is a need to develop case studies of structural competency framework implementation and training in two public health/social service organizations in New Mexico (New Mexico Human Services Department and the Doña Ana Wellness Institute).

Acronyms

- Academy for Diversity and Inclusion in Emergency Medicine (ADIEM)
- Accreditation Council on Graduate Medical Education (ACGME)
- Community-based participatory research (CBPR)
- Community Health Assessment (CHA)
- Community Health Workers (CHWs)
- Consolidated Framework for Implementation Research (CFIR)
- Doña Ana County Health Council/Doña Ana Wellness Institute (DAWI)
- Drug Policy Alliance (DPA)
- From Punishment to Public Health (P2PH)
- Implementation Science (IS)
- Medical-legal partnership (MLP)
- Medicine, Health, and Society (MHS)
- New Mexico Human Services Department (HSD)
- New Mexico State University (NMSU)
- Program for Residency Education, Community Engagement, and Peer Support Training (PRECEPT)
- Program in Medical Education for the Latino Community (PRIME-LC)
- Serious mental illness (SMI)
- Social Determinants of Health (SDOH)
- Socioecological model (SEM)
- Sophie Davis School of Biomedical Education (SDBME)
- Supplemental Nutrition Assistance Program (SNAP)
- Yale Structural Competency Curriculum Initiative (YSCCI)

Operational Definition of Terms

- Case study: this is a multiple-case design with two holistic cases each representing a single unit of analysis; each of the two cases sits within its own organization and is distinct from the other. The two cases in question are defined as organizations that are actively implementing the structural competency framework, including individuals involved in the implementation and those affected by the project.

- Structural Competency: the trained ability to discern how a host of issues defined clinically as symptoms, attitudes, or diseases (e.g., depression, hypertension, obesity, smoking, medication “non-compliance,” trauma, psychosis) also represent the downstream implications of a number of upstream decisions about such matters as

health care and food delivery systems, zoning laws, urban and rural infrastructures, medicalization, or even about the very definitions of illness and health (Metzl & Hansen, 2014)

- Structures: economic, environmental, political, and social forces that influence health and wellbeing outcomes by creating the context we are forced to operate within.

Literature Review

Structural competency is widely used in medical education with successful results, yet government and social service agencies lag in the use of the framework. This thesis seeks to develop case studies of structural competency framework implementation and training in two public health/social service organizations in New Mexico to provide a model for other government organizations to follow. In order to develop such case studies, it is important to understand the current breadth of literature on the topic of structural competency and how the framework has been used and is proposed to be used thus far. Given this is a study on implementation, literature on the Consolidated Framework for Implementation Research (CFIR) is included. Additional literature selected includes those that define and operationalize structural competency, explain important background theories for understanding structural competency, and articles that document the ways the framework has been used or propose ways it could be used.

Theoretical Framework: Consolidated Framework for Implementation Research (CFIR)

Implementation science (IS) is the study of implementing interventions. Implementation is defined as the processes employed to bring an intervention into an organization's use (Rabin et al., 2008). IS examines how an organization moves from deciding to use an intervention to making it standard practice, as well as the lifecycle of key stakeholder involvement from increasing necessary skills, communicating about the intervention, and committing to using it (Klein & Sorra, 1996). Implementation involves both social processes and context. The context in implementation research is defined as unique factors or surrounding circumstances that influence the environment for a particular implementation

effort. The setting describes the environmental characteristics in which the implementation occurs (Damschroder et al., 2009).

The Consolidated Framework for Implementation Research (CFIR) was developed in 2009 in response to an analysis of existing frameworks showing that while there is considerable overlap among them, there is not one comprehensive and inclusive model with all key constructs from key existing theories. Thus, the goal in developing the CFIR was to bring together common constructs across theories to "facilitate the identification and understanding of the myriad potentially relevant constructs and how they may apply in a particular context" (Damschroder et al., 2009 p. 2). CFIR brings together constructs from 19 existing theories and provides an overarching list of constructs to promote theory development and verification, rather than proposing interrelationships, ecological levels, or specific hypotheses as other implementation research theories have done (Damschroder et al., 2009).

CFIR includes five domains to guide understanding of implementation, each section with many constructs and sub-constructs. The first construct, intervention characteristics, examines the source, evidence, strength and quality, relative advantage, adaptability, trialability, complexity, design quality and packaging, and cost for a given intervention. The second, inner setting, explores structural characteristics, networks and communications, culture, implementation climate (including tension for change, compatibility, relative priority, organizational incentives and rewards, goals and feedback, learning climate), and readiness for implementation (including leadership engagement, available resources, access to information and knowledge). The outer setting is the third, which looks at economic, political, cultural contexts such as patient needs and resources, cosmopolitanism (in other words, is the

organization networked with other organizations that help with the innovation), peer pressure, as well as external policies and incentives. Inner setting and outer setting can overlap in many ways and are not always clearly delineated. Fourth, characteristics of individuals, looks at knowledge and beliefs about the intervention, self-efficacy, individual identification with the organization, as well as other personal attributes. Finally, an exploration of the process is the fifth construct. This comprises planning, engaging (including opinion leaders, formally appointed internal implementation leaders, champions, external change agents), executing, and reflecting and evaluating (Damschroder et al., 2009).

Using CFIR allows for a consistent taxonomy, terminology, and definitions to describe the implementation of innovations that is widely applicable across many contexts. The framework brings together many theories on implementation for a consistent and reliable guide and is used to build knowledge about what works where (Damschroder et al., 2009)**.** This is important because the goal of this study is to build a foundation for understanding implementation of structural competency in a new setting (i.e. government and social services); a framework that is applicable across contexts and settings as well as leverages a common vocabulary for implementation is an ideal fit for this goal. Implementation science applied to social services is also important generally as it is in line with evidence-based policymaking trends and particularly, legislation passed in both Obama and Trump eras requiring health and human service organizations to make evidence-based policymaking a standard practice. Implementation Science has been proposed as one key way for human service agencies to do this effectively (Zanti & Thomas, 2021).

CFIR has been used as a guide for developing the survey and interview guide instruments, with special attention paid to addressing each of the five core constructs. When analyzing the survey and interview data, it is expected that the most important and relevant CFIR constructs to implementation of structural competency will become clear. Analyzing data and working with CFIR constructs will be an interactive process in this project rather than proposing hypotheses about constructs upfront.

Defining Structural Competency

Structural competency was introduced as an idea first in 2010 by Jonathan Metzl, and formalized in 2014 by Metzl and Helena Hansen as a framework for training medical professionals to consider how the status of their patients are a representation of "the downstream implications of a number of upstream decisions," or structures (Neff et al., 2020; Metzl & Hansen, 2014). By recognizing that issues traditionally defined in clinical terms as symptoms, behaviors, or illness are often the result of structures such as policies (e.g. health care and food delivery), economic systems (e.g. capitalism), social structures (e.g. racism), and geographic systems (e.g. zoning laws), medical providers stop naturalizing inequality and address disparities at their true root (Metzl & Hansen, 2014; Neff et al., 2019). The framework is proposed as a way to move beyond cultural competency training, which has had inadvertent negative and exacerbating effects (Fisher & Baum, 2014; Gregg & Saha, 2006; Jenks, 2011; Kleinman & Benson, 2006; Metzl & Hansen, 2014; Tervalon & Murray-García, 1998). Cultural competency and cultural frameworks for thinking, in general, are not helpful in analyzing disparities that actually have structural origins. Similarly, social determinants of health (SDOH) is criticized for focusing too much on identifying and proving a connection between the

domain and health status (i.e. poverty and worse health outcomes), without spending time looking at the conditions that create poverty in the first place. Too often, behaviors, choices, cultural characteristics, or even false biological differences between races are identified as a root cause of an individual's health status. This method of thinking effectively "preserves social inequalities by giving the impression that the status quo is "natural" in the sense of not being primarily social or structural origin" (Neff et al., 2019). Both frameworks--cultural competency and social determinants of health--inadvertently naturalize inequalities, whereas structural competency pushes individuals to engage structural and systems thinking to determine and address the true root causes of disparities.

In training someone to be structurally competent, Metzl and Hansen propose five key skill sets to develop. First, recognizing the structures that shape clinical interactions. In other words, understanding that economic, physical, and socio-political forces play a role in medical decision making and in-patient interactions and even further, understanding how these forces may create tension in human interactions. Second, developing the language of structures and shifting the view beyond purely clinical interactions. This means asking providers to consider how social forces influence an individual's ability to realize their full health potential. For example, a person experiencing homelessness may not be able to ensure they have their prescription filled and are following their regimen because they first need to focus on their safety and shelter needs. Third, rearticulating cultural presentations in structural terms. In other words, "developing a richer vocabulary for rending structural mechanisms of stigma and marginalization visible, while at the same time shifting diagnostic focus from the "culture" of individual patients to the cultures of privilege and oppression that structures, like human

constructions, represent" (Metzl & Hansen, 2014 p. 130). Fourth, observing and imagining structural interventions, meaning to recognize that the structures that shape health are a reflection of decisions made at particular moments in time and therefore are subject to various potential interventions.

Finally, developing structural humility, or the trained ability to recognize the limitations of structural competency. The skills developed through this learning journey are key, yet they are only the beginning of a lifelong process. Competency does not refer to creating a checklist to follow, but rather skills to "develop, not the hubris of mastery, but the humility to recognize the complexity of the structural constraints that patients and doctors operate within" (Metzl & Hansen, 2014 p. 128). Thus, Metzl and Hansen propose structural humility as the final competency, a concept meant to "highlight the importance of respecting and deferring to the knowledge of patients and communities, rather than only or primarily considering the knowledge of the health "expert." It also encourages clinicians to follow the lead of patients and communities in developing appropriate, sustainable interventions to address harmful social structures" (Neff et al., 2019 p. 58). The five core competencies of structural competency are a guide for developing and delivering structural competency training for primarily medical providers and those in training (Neff et al., 2019); structural competency training thus far is described further under "Applications of Structural Competency."

Foundations and Background

The structural competency framework is based around many concepts and theories to explain why the world operates as it does, with the goal of shifting focus from pedagogical approaches to inequality to instead building an understanding of the levers or forces that

influence outcomes beyond individual interactions (Metzl & Hansen, 2014). The structural categories examined in structural competency training are political, economic, social, and geographic (Neff et al., 2017). Structures interact with each other and often overlap categories. For example, redlining is a policy dating back to the 1930s that created racial segregation in neighborhoods and pushed communities of color into less desirable and less-resourced neighborhoods. While the policy is now outlawed, the effects persist today as evidenced by the presence of less green space in communities of color and, therefore, more heat islands (Nardone et al., 2021). This example clearly shows how a policy structure has become a geographic/environmental one. The policy creation in the first place was also heavily influenced by a social structure, that is racism. Economic structures also play a role if capitalism is considered as a driver for slavery and settler colonialism, which created the unjust conditions for a policy like redlining to exist in the first place.

In order to enable individuals to think further upstream about the structures that create the conditions for inequality, many concepts and theories must be understood. Critiques of practices and theories like cultural competency, structural determinants of health, and acculturation research are important to structural competency because they are the foundation for structural competency's existence (Bourgois, 2012; Fisher & Baum, 2014; Gregg & Saha, 2006; Hunt et al., 2004; Metzl & Hansen, 2014; Metzl & Roberts, 2014; Tervalon & Murray-García, 1998). All three of these ideas inadvertently reinforce stereotypes and naturalize inequalities. Looking deeper at some of the forces that exist, we come to white supremacy, a "structure of white power and the domination and exploitation that give rise to social exclusion and premature death of people of color" (Bonds & Inwood, 2016) (p. 717).

White privilege is also important to understand, yet it is argued that by looking at privilege instead of supremacy, the focus is on the social condition of whiteness rather than the structures that produced the condition in the first place (Bonds & Inwood, 2016). Settler colonialism is an "enduring structure requiring constant maintenance in an effort to disappear indigenous populations," and is built on the exploitation, stealing of lands, erasure of cultures, and a "system of capitalism established by and reinforced through racism" (Bonds & Inwood, 2016) (p.717). Colonization, built on military conquest and the police system, is a structure that has created the conditions for individuals to distrust the government or others with authority as well as to hide or begin to mistrust traditional ways of knowing (Fanon, 1959).

Structural violence is a term coined in the 1960s to describe structures that prevent an individual from reaching their full potential. The presence of these structures is normalized as status quo and therefore rendered invisible. Social injustice and structural violence are closely linked as "the social machinery of oppression" (Farmer et al., 2006). Structural vulnerability is risk that an individual experiences as a result of structural violence; it is not caused by, nor can it be repaired solely by, individual agency or behaviors (Bourgois et al., 2017). Structural vulnerability results from the combination of identities a person holds (socioeconomic status, demographic characteristics) and the assumed or attributed status of society (Bourgois et al., 2017). These concepts set the foundation for understanding the context created by structural forces.

Identity is the way people perceive who they are based upon personal and collective beliefs, feelings, thoughts, experiences, ancestry, and behaviors (Denby & Bowmer, 2013). Certain identities are discriminated against more than others in society, influencing the way

individuals experience and interact with the world. Thus, the concept of intersectionality is important to this work. Intersectionality is a concept that recognizes overlapping identities inform belonging in systems and communities (Crenshaw, 1989). Finally, understanding neoliberalism and neoconservatism as a foundation for the conditions that allow intimate violence is important (Bourgois, 2012). Neoliberalism depicts free markets, free trade, and supports and encourages entrepreneurship; it effectively depicts individuals with the purpose of driving the economy forward, and the government is driven by profitability and productivity (Brown, 2006). Neoliberalism is very much aligned with the pervasive mentality in the U.S. of "market justice," which instills individual responsibility for collective responsibility and freedom from being told what to do (Beauchamp, 1976). Neoconservatism, on the other hand, empowers corporations, conservatism, patriotism, strong military, and expansion of foreign policy (Brown, 2006). It is easy to see how these ways of thinking drive much of society, culture, and essentially the status quo of today. A final theory to include here is fundamental causes, essentially that inequalities are fluid in their source yet constant in their existence as individuals with power and resources find new ways to maintain it often at the expense of those without (Phelan et al., 2010). These are all important concepts and theories to understand in order to master structural competency.

The social ecological model (SEM) is a helpful addition in understanding structural competency applied at levels of intervention and potential challenges and strategies at each level. SEM is a theory-based framework elucidating how a person's actions, decisions, and behavior are influenced by their social context. The term embodiment, or internalization of one's environment, is used to describe SEM (Glass & McAtee, 2006). Levels or concentric

circles of influence on an individual also describe SEM; the levels are categorized as intrapersonal, interpersonal, institutional, community, and policy and each includes intricacies of intersectionality and social constructs, with several potential targeted interventions to encourage changes that in turn influence health and wellbeing (Richard et al., 2011). The interpersonal level of SEM addresses beliefs, attitudes and knowledge, all clearly important building blocks to behavior. The next level, interpersonal, deals with social interactions and explores the role of social identity, support, and role definition with family, friends, and peers. The next layer of social life facilitates consideration of the institutions in which interpersonal interaction occurs in the form of rules, regulations, policies and informal structures. The next level explores community factors including social networks, norms, and standards. Finally, the policy level looks at local, state, and federal policies (Noonan, 2020). It is clear that the layers of social life influence not only behavior but are intertwined with each other, evidencing the importance of employing SEM and a multilayered approach to changing behavior.

Similar to the interconnectedness of structures addressed in structural competency, each layer of SEM has an impact on the others and cannot be examined or addressed alone. Understanding of social structures includes considering that racism and bias are structural forces, embedded in institutions, rather than purely individual choices (Metzl & Roberts, 2014)**.** In this way, we understand both the need for individual and interpersonal interventions, as well as institutional, organizational, and policy interventions. Structural competency and SEM together allow for a holistic and multifaceted understanding of the structural challenges to equity.

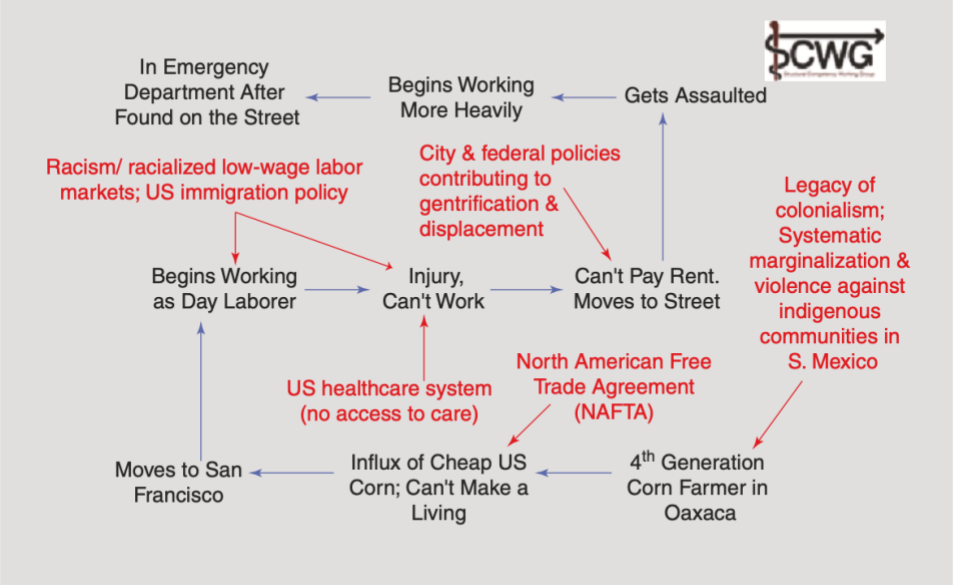
Applications of Structural Competency

Structural competency has primarily been used in medicine and medical education settings. There are a few notable examples of use or suggested use of the framework outside of this traditional setting. Each of the two categories will be detailed further in this section.

Medicine and Medical Education

The Structural Competency Workgroup is a collaborative of healthcare workers, scholars, public health professionals, students, educators, and other community members based in the San Francisco Bay Area. The group began in 2014 with the intention to train health professionals in structural competency. The group has trained several dozen groups in a half-day structural competency training, the curriculum of which is available publicly on a free curriculum sharing portal called, MedEd (Structural Competency Working Group, n.d.). To develop the curriculum, the workgroup met twice monthly to brainstorm about the training and involved a master's level student to work on the materials in between meetings. Diversity of experience in the group is noted as a key driver of the success of this process. One of the key teaching tools of the workgroup is a structural diagram (Figure 1) that reveals how a patient's life course and health are influenced by social, political, economic, and geographic structures.

Figure 1: Teaching Tool in Structural Competency Workgroup Workshops (Neff et al., 2019)



The first training for residents and faculty took place in June 2015 and was evaluated with post-session surveys and a focus group 1-month post-training. All 12 residents completed the surveys and all without conflict participated in the focus group; the results were analyzed using qualitative methods. The two key themes regarding the impact of the training include 1) residents felt that the training had a substantial and lasting influence on their attitudes and clinical practice and 2) residents were overwhelmed by the increased understanding of structural influences on health and the feelings of helplessness. It is important to note that the leaders of the workgroup felt ultimately that this level of distress was appropriate and potentially useful in driving change. The study's limitations include self-report bias, lack of generalizability due to this being an isolated training at one program, and that the study does not address the potential longevity of the training's impact (Neff et al., 2017).

Important suggestions for improving the structural competency education efforts were gleaned from the qualitative analysis. More examples of how healthcare providers have

responded to structural issues would be helpful additions to the training, as much of the time is spent brainstorming possible solutions rather than understanding ways others have been successful in addressing structural challenges. Structural competency should be brought into the training earlier so that trainees are developing the skills prior to taking care of patients. Structural competency was also suggested to become a more longitudinal and in-depth training rather than a short, 3-hour, session. In response to this feedback, the workgroup began to include a level of intervention activity to help trainees understand potential engagement at different levels(Neff et al., 2019). An example of how the structural forces is taught using SEM is provided in the Table 1 below from the structural competency training in collaboration with Berkeley School of Social Medicine (Berkeley Rad Med Critical Social Medicine Collective Structural Competency Working Group, 2016).

Table 1: Teaching Structural Forces are using SEM (Berkeley Rad Med Critical Social Medicine Collective Structural Competency Working Group, 2016)

Level	Challenges	Strategies
Intrapersonal	- "Implicit Bias" - Discrimination: Racism, sexism, heteronormativity, ageism - Moral judgments of patient behavior - Negative/blaming language - Concern for medical education debt and choice of career path - Ignorance of structural problems and solutions/services	- Education - Find ways to hold one-self accountable - Use neutral language - Ask more questions of your patients. - Talk less, listen more. - Cultivate structural humility
Interpersonal	- Language Barriers (including complex medical jargon/terminology) - Power imbalance between patient and provider - Training and/or clinical team hierarchies - The "Hidden" Curriculum - Time constraints - Student needs (learning, performance) balanced with patient needs - Exploitation of patients (both historical and immediate) - Preference for biomedical interpretation over patient interpretation	- Use existing support services (interpreters, etc) and use real language - Recognize the hierarchies, practice humility, resist where you can, use your status for good where appropriate/possible (med students). - Understand that medical professionals have a culture as well. - Structural vulnerability checklist (as a tool to avoid assumptions, address patient needs)
Clinic	- Poor interpretation services - Inaccessible for families (hours of operation, location, etc) - Disorganized, chaotic care (different providers) - Unadapted to patient/community needs - Providers feeling overstretched, time pressures - Underfunding	- Restructure clinic within constraints to best meet patient needs, advocate to change the restraints - Community engagement –ask what they need - Case management - Integration of behavioral services with mental health services

Community	- Lack of community representation - Exploitation of communities - Community policing practices leading to violence and trauma, including especially racialized police violence - Poor access to clean water - Poor access to affordable gas and electricity and - Poor access to healthy food - High levels of toxicity, environmental racism and classism	- Create opportunities for community voices/leadership - Work to educate police about the health costs of policing/incarceration - Partner with CBOs working on structural issue outside of clinical settings - Affordable and safe ride share opportunities for lower income communities - Community food gardens - Community organizing for safe water, lower neighborhood toxicity - Home/phone visits - Group visits - Use your white coat/title as symbolic capital
Research	- Emphasis on quantitative research that takes for granted social categories - Demand for particular kinds of evidence - Lack of funding for social science research relative to basic science - Publishing bias-research preferentially published from elite universities	- Engage patients in defining important research questions and aims - Situate research in a structural context - Use the accepted forms of evidence to point to structural causes for health disparities - Research the historical effects of policies - Advocate for better funding for qualitative research
Policy	- Immigration and housing policies - SSI benefits that require mental health diagnosis - Prison industrial complex and criminalization of drug use - Medicare value measurements that contribute to pressures - Access to/Cost of pharmaceuticals - Lack of diversity/inclusion in health professional education instructors - Lack of formal curriculum on structural determinants of health in health profession schools - Political redlining	- Refuse to report undocumented migrants - Contact media, seek out radio speaking opportunities - Write media article, editorials, and position statements demonstrating the relationship between policies and poor health - Challenge claims (e.g. based on genetics) that naturalize inequality - Research the historical effects of policies - Make pharmaceutical access inequity transparent through blog posts, social media, and formal media (e.g. Shkreli) - Activism - Be a medic or wear your white coat (with permission from organizers) at rallies, marches, etc. - #whitecoats4blacklives and other student movements to change admissions policies, national policies about policing and incarceration - Medical education reform

There are several universities that have integrated structural competency into their medical education or pre-health curricula including Vanderbilt University, Sophie Davis School of Biomedical Education (SDBME), Johns Hopkins School of Medicine, and University of California Los Angeles School of Medicine. Each will be described in detail below.

In line with the feedback that structural competency education should begin earlier, Vanderbilt University in 2008 began a pre-health major in Medicine, Health, and Society (MHS)

with a goal to provide an interdisciplinary study of health and illness and the role complex social issues play in health and wellbeing**.** While not explicitly teaching structural competency or using that term at the beginning, the focus was very much on structural inequalities. Starting in 2012, structural competency became a core component of the curriculum. The team was interested in whether the MHS program promoted different structural analytic skills than traditional pre-med programs, and therefore created an evaluation instrument to test just that (Metzl et al., 2019). The data showed that for the 85 MHS students surveyed, they do, in fact, seem to have a better understanding of structural influences to health and wellbeing indicating the success of the program (Metzl & Petty, 2017). The authors recognize that the program is quite resource-intensive given the integrated nature and recruitment of faculty, so it may not be realistic to become standard practice for pre-med programs. The data suggests, however, that bringing structural competency to education earlier is effective and important (Metzl et al., 2019).

Another pre-med curriculum working with structural competency is at Sophie Davis School of Biomedical Education (SDBME) in Harlem. The program is a BS/MD 7-year program and students must agree upon admission to work in underserved areas of New York for 2 years after residency. The program includes a practicum in Community Health Assessment (CHA) which provides a foundation in understanding the demographic, socioeconomic, and health status of a community leveraging data on health disparities and social determinants of health. The second part of the program that relates to structural competency is fieldwork in community medicine, which involves a 20 hour/week engagement with a health or social services agency. The goal of this program is for students to experience and discover how

structures influence health outcomes. Students have provided feedback that they found the coursework useful in supporting them to serve underserved populations (Edelsack et al., 2019).

Johns Hopkins School of Medicine has taken an innovative approach to bringing social medicine into the classroom. Since 2013, “Introduction to Social Medicine” has been offered as an elective class for medical school students. The first three weeks of the course introduce students to social medicine with the goal of recognizing forces or structures that exist and influence health. Then, students go out into East Baltimore and take what they are learning into the real world in a “walking classroom” format. Students form groups and pick a health indicator to study and spend time looking at data, exploring the streets and noticing what they see, and trying to bring the two together in a way that makes sense. The ultimate goal is to get students to understand that health is complex and not easily predicted or understood. Students rated the class experience highly, yet there are limitations to the results. Students self-selected into this elective course so their interest in the content is already likely higher than the general student body, and no formal evaluation of learning was conducted. The results do indicate that learning in the community is valuable and authors note that ideally, an interprofessional structural competency curriculum will become standard practice (Greene et al., 2019).

University of California Los Angeles School of Medicine began an exploration, led by two social scientists, to develop ways of incorporating social science methods and theory into the pipeline of providers from pre-medicine through practicing clinicians. Social justice is often a driving force for individuals to enter the medical field, yet as individuals progress through

their education and training, they lose such commitments. Social medicine and social science in medical education, therefore, is proposed as a way to foster social justice passions and practices. The MD/PhD program is where this interdisciplinary training has been tested, rather successfully. Employing this curriculum in MD training alone has not been successful. A 6-week summer elective was established to pair medical students with researchers, funded by stipends, with the goal of exploring unmet mental health needs in the homeless population of Los Angeles. The experiment was widely successful, with enthusiastic responses from students regarding their community engagement, reinvigorated passion, connection to social justice, and decreased social/professional isolation. The success of this pilot is important, yet the ability to create a core required course has not been realized (Braslow & Bourgois, 2019).

Additional suggested uses of structural competency in medicine include reproductive health, social work, and emergency medicine. Reproductive health disparities are persistent in the United States. Structural competency is proposed as a way to address reproductive health disparities as it is a particularly politically charged topic (M. M. Downey & Gómez, 2018). It has also been proposed that by training social workers and medical providers in structural competency together, the fields may work more effectively together and better serve their patients. Training would provide the foundational framework for both sides to understand structural forces, would break down the hierarchy inherent between the fields, and would effectively allow the two to work better together in the promotion of health and wellbeing (M. Downey et al., 2019). Finally, training emergency medicine providers in structural competency has been proposed after a needs assessment for the Academy for Diversity and Inclusion in Emergency Medicine (ADIEM). Emergency medicine is the front door and the safety net for the

U.S. healthcare system, making them well poised to engage a structurally informed perspective when dealing with all kinds of patients and needs. The authors call for the integration of structural competencies with the Accreditation Council on Graduate Medical Education (ACGME) requirements (Salhi et al., 2020).

Other Contexts

Structural competency has been implemented in a limited number of settings outside of medical education and clinics and has been suggested in many contexts as potentially useful. These contexts can be described as non-health-sector, community, and policy.

The Columbia University Mailman School of Public Health sought to teach public health students about the science of cities using a model of combining coursework with community engagement. The program focused on learning about the built environment and structural issues that contribute to inequality. Students effectively felt that change was possible in the contexts in which they were working, indicating some success of the track. The track ended in 2011, however, and a key learning from the project is the challenging reality of siloed public health interventions when tackling complex problems in inner-city communities and the need for a more holistic approach (Kaufman et al., 2019).

Another example involves Liberian refugees and immigrants in Staten Island, New York and their partnership with mental health professionals. Structural competency is important here in empowering immigrants as the experts in their experience and psychosocial challenges. Following the LINC model of community resilience, providers engaged community members as active participants in the process of addressing the community's challenges and

following an iterative process with continued inputs from all stakeholders. The project faced many challenges, including the reality that the community ranged from social cohesion to fragmentation, youth have different needs often than adults, resources were limited, how to support cohesion while challenging the status quo in a community, and how to deal with the deep trauma of the immigrant community. The key learning from this project is that collective trauma requires collective response, and a structurally informed perspective helps providers to be true allies in this process (Saul, 2019).

The medical-legal partnership (MLP) approach is another example highlighting the value of addressing social determinants of health. Structural issues affecting a patient's health can feel daunting for a provider to address, and many of such structural issues have legal underpinnings. This partnership provided systematic ways of screening for social determinants of health, involving legal advocates, analysis of population-level patterns by MLP teams. By partnering together, the law can be leveraged as a way to better understand social determinants as well as to address risks and advocate in non-traditional ways that improve the patient's situation (Beck et al., 2019). Bringing in legal partners to help clinicians focus on the structural determinants of the social determinants of health, they focus more upstream at the root causes and create interventions best suited for their patients. This is an important model to consider for future implementations.

Serious mental illness (SMI) is disproportionately distributed across race, ethnicity, and socioeconomic status and the social conditions of those affected are clear predictors of poor health outcomes. Connection to community resources, therefore, is important for healthcare practitioners and structural competency is a proposed method of making this connection.

Mental health practitioners are traditionally trained to focus on the individual, while this shift asks that they consider the social ecological model and to engage interdisciplinary teams for interdisciplinary interventions. The Program for Residency Education, Community Engagement, and Peer Support Training (PRECEPT) aimed to create that shift for New York University psychiatry residents through exploratory fieldwork, qualitative research, peer collaboration, structured didactics, and site visits in the Harlem community. The program had mixed reviews as residents experience new connections with the community, but also discomfort hearing the true experiences of individuals in the community especially as it relates to psychiatry as a profession, as well as with working in low-income communities for the first time. Students indicated they would have benefited from engaging with the content earlier (Suhail-Sindhu et al., 2019).

In 2004, the University of California began the Program in Medical Education for the Latino Community (PRIME-LC) for medical school students committed to working with underserved Spanish-speaking patients. PRIME-LC's goal was to bring intentional and deep listening into clinical interactions as a method of engaging with structure and ultimately aiming for equity. The program included 90 hours of seminars taught by medical social scientists with a focus on building humility of students, using Metzl and Hansen's proposed structural humility. The course describes structural competency as the "understanding that you bring into any relationship a lifetime of experiences, resources, knowledge, and privileges that are not of your own making, but of the confluence of biology, biography, history, and institutional arrangements" (Montoya, 2019). The guiding principle of "know thyself" was used in this training as a way to understand where you might fit in, the conditions that brought you there,

as well as the same for the other person you are interacting with. The key learning from this project is guiding with the word acompañamiento/accompaniment, meaning to care for one another or solve a problem in a way that is respectful and understanding of all parties involved and takes into account the need for a holistic view. Relational politics must guide the work with communities and patients for the most embodied and connected results (Montoya, 2019). While this case study tells an important story of bringing structural competency into working with patients, it is entirely without evaluation results so there is no generalizability or applicability of lessons learned.

The Yale Department of Psychiatry residency program began a collaboration with the community to teach residents about structural issues from the lens of the community itself. The Yale Structural Competency Curriculum Initiative (YSCCI) began and involved key perspectives from the community in planning. They involved a person living with mental illness who works as a peer mentor at a local health center as well as a community leader to join the planning group. The program began by breaking the 18 participating residents into groups and discussing art that brought out issues of race, class, colonialism, social inequalities, rather than addressing them through lecture, and then took residents out into the community. YSCCI was ultimately very experiential in nature and allowed for different experiences from the traditional classroom. Outcomes were evaluated by listening to conversations of the resident student groups, by listening to presentations of the residents, and by one focus group. Key feedback includes that residents learned about structures and barriers to health affecting the community that they were previously unaware of, yet many still left feeling disconnected from the community. Limitations include residents were not taught how to bring knowledge gained

into the clinical interaction, the program was resource-intensive and therefore may not be replicable (Rohrbaugh et al., 2019).

Another case study describes the experience of Asian Americans and the model minority misconception that influences clinical interactions with this group. Asian Americans are disproportionately impacted by diabetes, with meaningful variation across subgroups. Community health workers (CHWs) are effective at supporting cultural, social, and health needs of communities and especially supportive for community-based participatory research (CBPR). CHWs are on the front lines of healthcare and are often members of the community they serve; they often liaise between providers and patients for more meaningful interaction. CBPR is a method of research that promotes collaboration between those involved in doing the research and the community stakeholders to ensure research is appropriate, to facilitate co-learning, and to empower community members. The DREAM project was established to bring in CHWs to support type 2 diabetes control and management in the Bangladeshi community of New York City leveraging structural competency principles. The study was evaluated using a randomized control trial and showed that those who participated showed an increase in positive health behaviors and increased knowledge related to diabetes, as well as an increased likelihood of decreased A1c at 6 months. Participants also felt the involvement of CHWs was beneficial to their health. Thus, CHWS “can effectively work across community and healthcare providers to accelerate community engagement among underserved populations and structural competency of health providers” (Trinh-Shevrin et al., 2019).

Another case study describes a lawyer’s experience integrating a public health perspective into their practice to more effectively address the structural influences on

individuals involved in the justice system. In 2013, From Punishment to Public Health (P2PH) was launched to address the issue of incarceration with a group of academic, research, policy, and direct service agencies collaborating on the problem. Using a two-pronged approach of interdisciplinary dialogues and practice innovation accelerators, medical students and faculty were engaged to address endemic social and structural problems that lead to incarceration as well as to imagine policy and institutional interventions that support health and wellbeing of communities. Students and faculty participated in local advocacy efforts much different than in traditional medical education and effectively expanded the boundaries of their practice. P2PH realized success in the five structural competencies proposed by Metzl and Hansen by building a common language, skills, responses, and metrics to address the problem at incarceration as well as allowed space for the humility called for in structural competency. A shift in the way individuals spoke about clients clearly changed over time, with a reframing of cultural formations in structural terms (Coots et al., 2019).

Allied health workers are proposed as agents of change given the environments they work within are ripe with structural inequalities. Allied health workers, primarily women, people of color, and immigrants, have historically driven change in their environments through unionizing and social movements that fight for necessary reform. The issues facing healthcare workers, such as inadequate staffing, low pay, rampant hierarchies, and much more, also impact patient care and essentially reinforce the cycle of structural challenges. The case study describes the importance of allies and mavericks in driving change forward in partnership with allied health professionals leading the movement, and ultimately suggests changes the healthcare industry could make to be a better model of a different way of operating that does

not reinforce harmful structures (Jones, 2019). This proposal holds even more weight in the present day given the reality of the COVID-19 pandemic and structural inequities faced by essential workers.

Policy advocacy is an important area of potential influence and it is argued that healthcare practitioners should get more involved in this manner. Drug Policy Alliance (DPA) is an advocacy organization that involves researchers and physicians to reform drug policy. DPA worked with providers to pass medical marijuana legalization in New York in 2014 and to continue improving the program after it was passed. A second example leverages a structural competency approach to understanding barriers to buprenorphine prescriptions and effectively changing the law to make the life-saving medication more accessible to individuals living with substance use disorder. A third example involves raising awareness in the public and among other physicians about the need for safe consumption spaces as well as bringing in people with lived experience to speak about the issue in order to get important legislation passed. These three specific examples of provider involvement in policy change highlight this important area of impact providers can have (Netherland, 2019).

Conclusion

Structural competency is a complex and, therefore, challenging framework with many important concepts and theories at its foundation. The authors who originally developed the framework make an important distinction between structural competency and cultural competency and social determinants of health. The distinction between cultural competency is critical, yet for social determinants of health there is some useful overlap and potential for building with structural competency work. Many of the documented projects use both

frameworks to describe their work and it's unclear whether the original creators of structural competency would agree with this framing.

Clearly, structural competency has been demonstrated in medical education and medicine and many other applications are possible outside of those contexts. Structural competency provides a new way of viewing and engaging with the world that is generally more empathetic and understanding of the reality that the context individuals operate within is created by structures, and therefore out of their control. By taking this lens, problem-solving across contexts becomes more genuinely collaborative. The flip side, as many projects described above mentioned, is that it is also more resource-intensive. Many of the documented projects using structural competency have a very small “n” or are not generalizable to other settings and there is a need for more rigorous study and documentation of outcomes, proximal and distal.

The current body of knowledge applies to this study in several areas. First, several case studies in the literature describe a structurally informed perspective as important in enabling those using the framework to better do their job and to better engage with the communities they serve. Second, engagement of community members in structural competency work is consistent across the literature. Next, the socioecological model and levels of intervention are mentioned as core. Finally, cultivating structural humility through ongoing self-reflection and learning is a common theme throughout.

Methodology

Introduction

The purpose of this study is to develop case studies of structural competency framework implementation and training in two public health/social service organizations in New Mexico (New Mexico Human Services Department (HSD) and the Doña Ana Wellness Institute (DAWI)). The intent is that the case studies will be helpful as a potential model for other similar organizations to follow.

Research Objectives

The study seeks to address the following research objectives:

- Develop a case study of the New Mexico Human Services Department (HSD) implementation of structural competency
- Develop a template of the HSD implementation that can be followed.
- Develop a case study of the Doña Ana Wellness Institute (DAWI) implementation of structural competency
- Develop a template of the DAWI implementation that can be followed.
- Describe similarities between the two programs.
- Describe differences between the two programs.
- Describe lessons learned to enable other organizations in public health and/or social services to implement structural competency.

Research Design

This is a multiple-case design with two holistic cases each representing a single unit of analysis; each of the two cases sits within its own organization and is distinct from the other (Yin, 2009). The project seeks to answer the question, 'how have the New Mexico Human Services Department and the Doña Ana Wellness Institute implemented structural competency in their organizations?' The Consolidated Framework for Implementation Research (CFIR) (CFIR Research Team-Center for Clinical Management Research, 2022) guides the study in exploring

how each of the five CFIR domains relates to each case's implementation. The study also seeks to understand whether there are additional motivating factors and important elements of implementation not captured within CFIR. The two cases in question are defined as organizations that are actively implementing the structural competency framework, including individuals involved in the implementation and those affected by the project. Implementation tends to be an ongoing process and, therefore, the cases are not defined with a true start or endpoint. The cases are based on the perception of key informants about their implementation work and involve any part of implementation from first learning about the innovation to running a pilot to evaluating to adapting and implementing the innovation in a different way.

As described more in the Data Analysis section, the targeted exploration of the study becomes clear through analysis techniques such as pattern matching and explanation building, logic models, cross-case synthesis, and exploration of counter-narratives. Use of two case studies guided by a theory allows for the potential generalization of findings about the application of CFIR domains to structural competency implementation (Yin, 2009).

Theoretical Framework

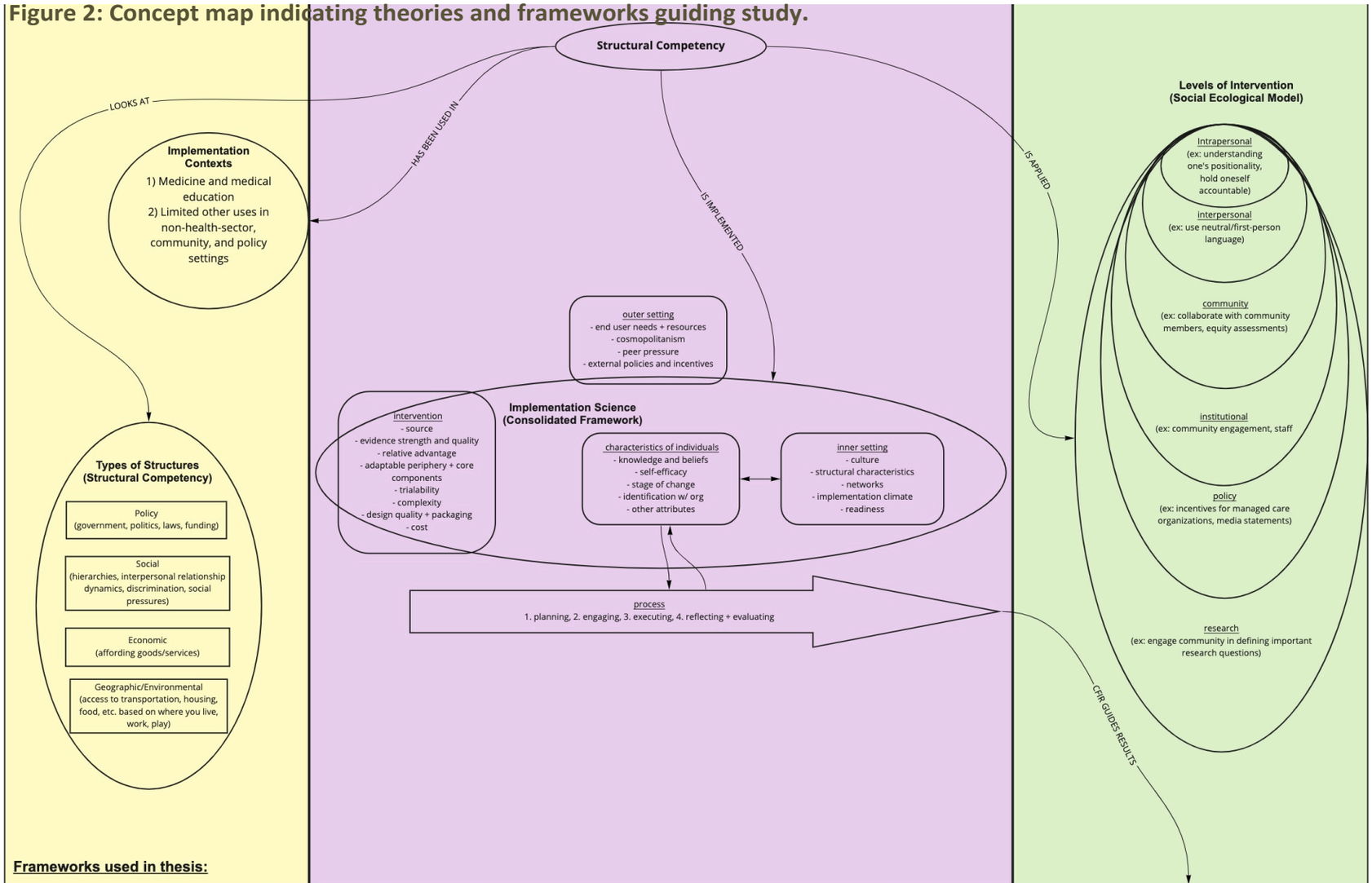
The Consolidated Framework for Implementation Research (CFIR) was developed in 2009 and includes five domains to guide understanding of implementation efforts, each with many constructs and sub-constructs. The first construct, intervention characteristics, examines the source, evidence, strength and quality, relative advantage, adaptability, trialability, complexity, design quality and packaging, and cost for a given intervention. The second, inner

setting, explores structural characteristics, networks and communications, culture, implementation climate (including tension for change, compatibility, relative priority, organizational incentives and rewards, goals and feedback, learning climate), and readiness for implementation (including leadership engagement, available resources, access to information and knowledge). The outer setting is the third, which looks at economic, political, cultural contexts such as patient needs and resources, cosmopolitanism (in other words, is the organization networked with other organizations that help with the innovation), peer pressure, as well as external policies and incentives. Inner setting and outer setting can overlap in many ways and are not always clearly delineated. Fourth, characteristics of individuals, looks at knowledge and beliefs about the intervention, self-efficacy, individual identification with the organization, as well as other personal attributes. Finally, an exploration of the process is the fifth construct. This comprises planning, engaging (including opinion leaders, formally appointed internal implementation leaders, champions, external change agents), executing, and reflecting and evaluating (Damschroder et al., 2009).

The CFIR theory guides this primarily deductive study; during development, survey and interview questions were mapped to the CFIR domains in order to ensure all domains were included (see literature review for an overview of domains and appendix I for the interview guide). A key underlying assumption of this study was that both teams used implementation processes when bringing structural competency into their organizations and the CFIR could be used to map the processes. Given each setting is different, the study employed inductive approaches to allow for fluidity and iteration as the study progressed. The study was not built rigidly around CFIR, but rather used the framework as a guide and allowed for additional

themes and hypotheses to emerge during the study. Figure 2 shows how CFIR guided instrument creation, data collection, and data analysis.

Figure 2: Concept map indicating theories and frameworks guiding study.



Frameworks used in thesis:

Literature Review	Methods	Results
• Understand structural competency framework, including types of structures explored and examples of each • Understand history of framework and its applications	• Consolidated Framework for Implementation Research (CFIR) constructs used to guide development of interview guide and pre-survey • CFIR used to guide development of codebook based on constructs and subconstructs	• Guided by CFIR • Social ecological model involved in how each case implements structural competency and is therefore part of results • Structural forces exist at multiple levels of intervention at the same time and therefore require multiple types of interventions

Population and Sample | Recruitment and Enrollment

Four individuals were recruited from each of the two sites of interest, each involved in the implementation of the framework as either an implementation leader, champion, or opinion leader. Individuals for DAWI were selected with input from the team at DAWI, and at HSD given the researcher's first-hand experience and knowledge of the site. One individual from DAWI declined to participate given their limited knowledge and experience with the framework. Three individuals were interviewed from DAWI and three from HSD, with the researcher providing another source of data via autoethnographic journaling given her involvement with HSD's implementation.

After individuals were recruited, the researcher sent emails to each participant with the purpose of the study, a consent document, and a link to schedule an interview using Calendly (Awotona, 2013). Once an interview was scheduled, the researcher sent a thank you email with the pre-interview survey in Google Forms (Google, n.d.) for the participant to complete (see appendix II). Based on answers to the pre-survey, the researcher then tailored the interview guide accordingly, removing some of the more detailed questions about implementation as they were not applicable for non-implementation leaders. During the interview, the researcher began by reminding participants of the purpose of the study and the principles of consent, answering any questions, and starting the recording. Immediately after the interview, reflections were noted about the interview process, the dynamics, and anything important for the researcher to note prior to the next interview. Time permitting, the interview was transcribed immediately and saved for analysis.

This study used semi-structured qualitative interview guides with information-rich key informants and autoethnographic journaling to gather information from individuals involved in implementing structural competency at DAWI and HSD. Each participant completed a brief survey with demographic information and their role in the project (champion, implementation leader, opinion leader, other), thus allowing the researcher to tailor interview questions accordingly. Interviews were chosen over focus groups in order to hear each individual's story and experience with implementation. Time constraints were also a factor, as challenges were likely to occur in coordinating with multiple high-level, busy individuals, and thus key informant interviews were the most appropriate method.

Data Collection

Due to the distance of participants across the state of New Mexico and the continuing COVID-19 pandemic, interviews were conducted over Zoom video conferencing software (Yuan, 2022) during the month of March 2022, recorded, transcribed, and input into MAXQDA (VERBI Software, 2021). The researcher was deeply involved in HSD's implementation of structural competency, which could potentially lead to bias. Bias was mitigated by using autoethnographic methods to collect the researcher's experience and employing methods of pattern matching and counter-narrative as described in more detail in "data analysis." The researcher used a journal template to collect their experience with the implementation project, adding a total of four entries between February and March 2022.

A few evaluation strategies were used to ensure the quality of the project. Multiple individuals with similar roles were interviewed both within and across the two sites, allowing

for some triangulation of data and the use of multiple cases allowed for cross-case comparison (Bazeley, 2013). This also provides construct validity as multiple sources of evidence are used to establish a chain of evidence (Yin, 2009). The study further demonstrates construct validity as operational measures of the concepts being studied are outlined in the literature review and the cases in this study align with previous implementations of structural competency, although in different contexts (Yin, 2009). Prolonged engagement was also present as the researcher has been involved with the two teams and projects since January 2020. Prolonged engagement provides additional expertise and knowledge from the researcher's firsthand experience in the projects of interest (Bazeley, 2013).

Data Analysis Methodology

The CFIR constructs guided the deductive development of codes and initial analysis, with the assumption that Implementation Science fits as a framework to assess how teams implemented structural competency. Additional codes were developed inductively as the researcher explored the data further. Codes related to innovation characteristics including evidence strength and quality, relative advantage, adaptability, and trialability were used. An additional grouping was the outer setting and included needs and resources of those served by the organization and how well the organization is networked with others. The inner setting was also important and includes codes of culture and various characteristics of the implementation climate, like tension for change. Characteristics of individuals involved was another code category, including knowledge and beliefs about the intervention, self-efficacy,

and other personal attributes. Finally, the process for implementation itself was considered and included codes of planning, engaging, executing, as well as lessons learned.

After the fourth interview was complete, the researcher began drafting a codebook using existing codebooks based on CFIR and a few additional codes developed inductively from the data. After the fifth interview was complete, the researcher began working with the codebook to code existing data (five transcripts and one autoethnographic journal). After the sixth interview, the researcher reviewed the codebook again to see if additional codes needed to be added or if anything had shifted. The initial codebook was 16 top-level codes with 12 subcodes under three top-level codes, for a total of 28 codes (see appendix III).

Thematic analysis is common in qualitative research on implementation science and this study was primarily deductive, using the CFIR constructs as a thematic guide, with additional themes emerging inductively (National Institutes of Health | National Cancer Institute Division of Cancer Control & Population Sciences, 2015). MAXQDA was used to code and analyze the six interview transcripts and autoethnographic journal. In the first round of coding, the researcher coded all five interviews and the autoethnographic journal, adding memos as needed. After all documents were coded in the first round, the codebook was reduced to 13 top-level codes with 8 sub-codes under three top-level codes, for a total of 21 codes (see appendix IV). The researcher then reviewed each piece of data again to address missing or new themes that emerged as well as to combine themes as needed. This two-step process supported data quality and accuracy of coding in the absence of a team researcher.

Next, the researcher examined all coded segments for each code to assess for appropriateness of coding and made several changes to the coding during this process. Analysis in MAXQDA started concurrently while coding was cleaned and finalized; the researcher began to organize and make sense of the data while also continuing to clean coded segments. The researcher sought to explore how themes came up for each of the two cases individually and specific comments that were made, as well as to compare across cases. She started by looking at each coded segment within each CFIR domain starting with intervention characteristics, then outer setting, inner setting, characteristics of individuals, and ending with process. Using Microsoft Excel (Microsoft, 2022), the researcher examined cross-sections between codes from the process domain and other domains

This shift in the process allowed for pattern matching and ultimately, the creation of flowcharts or logic models for each case. Pattern matching allowed for comparing the case implementation experience across CFIR domains and elucidating how important each domain was to each case individually, as well as whether there are rival explanations for implementation outside of CFIR. The researcher also considered counter-narratives between the autoethnographic journal and the HSD key informant interviews, seeking to mitigate bias. The researcher also explored the data with the purpose of explanation building, aiming to add meaning to the patterns that arise. Finally, the researcher created logic models of each case study's implementation processes as a way to summarize the learnings for each case individually and in comparison to each other. To allow for the potential transfer of this study to other projects, the theory was applied to each case individually, replication logic was present across multiple cases, and the researcher collected lessons learned for future

implementation projects. Names of individuals, pronouns used in reference to individuals, and specific details about role within the organization have been modified. Due to the limited sample size and desire to protect confidentiality, the researcher also de-identified the autoethnographic journal data.

Results

Description of Participants

The participant pre-survey provided demographic information about each of the seven participants in the study (four from HSD, three from DAWI). In addition to general demographic characteristics, participants selected all CFIR role constructs that best describe their role in the organization's structural competency implementation. Opinion leaders are "individuals in an organization who have formal or informal influence on the attitudes and beliefs of their colleagues with respect to implementing the intervention;" implementation leaders are "individuals from within the organization who have been formally appointed with responsibility for implementing an intervention as coordinator, project manager, team leader, or other similar role;" and champions are "individuals who dedicate themselves to supporting, marketing, and 'driving through' an [implementation], overcoming indifference or resistance that the intervention may provoke in an organization" (CFIR Research Team-Center for Clinical Management Research, 2022). Table 2 displays the pre-survey results.

Table 2: Demographic information from pre-survey

Demographic	Overall	HSD	DAWI
Implementation Role* ***respondents were asked to select all that apply**	5 Opinion Leader 5 Implementation Leader 6 Champion	3 Opinion Leader 3 Implementation Leader 3 Champion	3 Opinion Leader 2 Implementation Leader 3 Champion
Role at Organization	28.6% (2) Intermediate (management) 71.4% (5) Executive/senior leadership level	50% (2) Intermediate (management) 50% (2) Executive/senior leadership level	100% (3) Executive/senior leadership level
Length at Organization	42.86% (3) 1-3 years 42.86% (3) 4-10 years 14.28% (1) >10 years	75% (3) 1-3 years 25% (1) 4-10 years	66.67% (2) 4-10 years 33.33% (1) >10 years

The qualitative data from six interview transcripts and one autoethnographic journal were analyzed using MAXQDA (VERBI Software, 2021) and themes emerged in alignment with the CFIR domains and constructs, indicating that implementation science is an appropriate model for both case studies. The CFIR "process" domain with constructs of "planning," "engaging," and "executing" are used in conjunction with other CFIR domains and constructs as a guide to tell each implementation process story. The CFIR process construct "reflecting and evaluating" was not included as it did not apply to the data. Figure 3 defines each process domain. The results indicate that all constructs of the CFIR domain were applicable to both sites, and all other domains were applicable at each step in the process with the singular

exception of executing and intervention characteristics which only applied to DAWI. Additional detail about the processes for each case study are described in the remainder of this section.

Figure 3: Process Domain Definitions

Process Construct	CFIR Definition (CFIR Research Team-Center for Clinical Management Research, 2022)
Planning	"The degree to which a scheme or method of behavior and tasks for implementing an intervention are developed in advance, and the quality of those methods or schemes."
Engaging	"Attracting and involving appropriate individuals in the implementation and use of the intervention through a combined strategy of social marketing, education, role modeling, training, and other similar activities."
Executing	"Carrying out or accomplishing the implementation according to plan."

New Mexico Human Services Department Implementation of Structural Competency

Introduction

Study participants from the Human Services Department represent a mix of CFIR implementation roles of opinion leader, implementation leader, and champions. They are equally split in their organizational roles with two participants in intermediate management and two at the executive or senior leadership level. Three or 75% of participants have been with the organization between 1-3 years and 25% or one individual has been with the organization between 4-10 years. In analyzing the three HSD interview transcripts and one autoethnographic journal, all CFIR domains (process, inner setting, outer setting, intervention characteristics, characteristics of individuals) came up as important in HSD's implementation of structural competency.

The process story is told following the process domains of planning, engaging, and executing. Planning for HSD's implementation included learning about the intervention,

adapting the intervention, tying the intervention to the organization's mission and strategic plan, how the implementation climate and compatibility affected planning, the evident tension for change pushing HSD towards implementing, and considerations for sustainability. The engaging phase included discussions about the implementation climate that are related to tension for change, empathy building, and leadership engagement. Finally, the execution phase included detailed descriptions of what the team has done, examples of HSD programs that are structurally informed, and discussions about what could be next for structural competency work at the organization

Planning

The first step in planning to use the intervention involved learning about the framework. One individual from HSD learned about the framework first and brought it to the rest of the team. They recalled:

> I guess I must have said something in my introductory meeting with them [DAWI team] about, you know, addressing like the determinants of health, and they mentioned, oh, there's this group coming in Las Cruces in September, you should come to this training... so I went, and it was the folks from Oakland, and they did a structural competency training for people down in Las Cruces. And the whole time I'm sitting there thinking this is really cool, this makes a lot of sense. And I think there's some way to like, apply it to government. That's sort of what I was thinking. That's how I first heard about it. So that was like September, I think, of 2019. I got back from that training really jazzed. I'm like, we need to do this at HSD.

Learning about the framework from a training led by the structural competency workgroup is the first step in this process. It is also clear that upon learning about the framework, the individual immediately realized that the framework would need to be adapted from its traditional use in medical education or clinical settings to apply it to a new context in government.

Two of the other team members recall feeling an inherent connection to the framework that supported their desire to be involved. One said:

> The framework makes a lot of sense to me. I understand that people are living in a system that is mostly out of their control, and we can only respond to what we are given. It is important to understand the context and not blame people for their situation.

The other individual, in response to the interviewer noticing it sounded like the framework was aligned with how they have viewed their work for a long time, responded, “oh, for me personally, it's huge,” and later reflected, “that's kinda why I took this job in a way is it's a lot of money and you can change the way stuff gets done.” These quotes indicate that the alignment one feels with the framework may be an important motivator for the HSD team to engage in structural competency work.

For the individual that first learned about the framework and brought it to HSD, they reflected on the importance of their role within the organization and understanding the framework deeply enough:

> I had only started my job at HSD that late July. Yeah. Like the end of July. And I put together this like concept paper to show to my boss. I thought it was great, but I showed it to them and they were like, what is this we're not doing this. And I was like, oh man, very, very disheartened and, you know, usually I'm pretty good at making pitches and conceptualizing, but I think I have, I had a lot of my own processing to do.

This highlights the importance of having sufficient understanding of the framework, especially deeply enough to be able to adapt it to government, combined with the right level of agency within the organization to propose implementation. Agency will be discussed more in the comparison section.

Adapting the framework to the new context of government and social services proved challenging and time consuming for the HSD team. One team member described:

> I went to that training and I was like, yeah, it just felt like he was speaking to me. I was like, this is, and it was odd because it was very clinical patient doctor. So I felt like it was speaking to me, but then I could see it like sort of being translated in my mind to apply to government. And I was like, yeah, like, how do we bring, this is the context that we need to bring to HSD if we can get people to understand these structures that surround all this, I guess I knew about like social determinants and I knew about cultural competency, but I felt like they didn't go deeply enough. So when I heard about this, I was like, yeah, like this makes sense.

Not only did the team have to think about how to adapt the framework to apply to government, but they also had to consider how to frame it in a way that people who work at HSD would connect with. One individual described it this way:

> Well, we don't call it structural competency, and I think structural determinants of health and wellbeing works, it's super long, but I think people get it. And we have talked about why we have to throw the wellbeing part at the end, because otherwise like people who work like in SNAP or our child support program or in our other programs that aren't health related, they won't see themselves in this framework unless we bring wellbeing. And I think that's, I think in it's just as important that we talk about wellbeing as we talk about health, they're all related together. We don't talk about patients, we talk about customers, we're not talking about clinicians, we're talking about, you know, our director of general counsel or our FAAS, which, who are the people who are on the front lines, like enrolling people in benefits or certifying people's benefits or like economists in Medicaid or SNAP, like it's a totally different audience.

This constant reframing was key for the team in order to bring people into the work, and it appears to be valuable for the HSD team to have taken the time to learn and understand the framework deeply enough to adapt it and feel confident with the adaptations made.

From early on in the planning process, the HSD team worked to connect the structural competency implementation to the strategic plan and mission of the organization. The following quotes highlight how this happened:

> Well, I think our mission statement kinda speaks for itself, you know, to transform lives. And I think the structural determinants bring kind of more specific examples of why there are so many low-income people, you know, it sort of helps. It's sort of a structure for structure, you know, it's a structure for my thinking.

> We aligned our initial implementation with goals two and four of HSD's strategic plan, which focus on creating effective, transparent communication to enhance the public trust and promoting an environment of mutual respect, trust and open communication for staff to grow and reach their professional goals. Our ultimate goal is to bring the framework into all four goals, adding the first–to improve the value and range of services we provide to ensure that every qualified New Mexican receives timely and accurate benefits–and third–successfully implement technology to give customers and staff the best and most convenient access to services and information. We thought that by focusing first on the two goals with more internal work, we could build knowledge and take the lens inward before looking outward…Our initial implementation has three phases: training, communications, and exploration of tools.

For the HSD team, grounding the intervention in the strategic plan and mission was a key driver for the project moving forward. The mission is aligned with the framework as using structural competency helps HSD understand the need for and ways to transform lives as well as to seek to both enhance security and promote independence for those they serve. Using the four goals of the strategic plan as an anchor for the implementation work seems to have helped HSD move the project along.

Another key step in the planning process was getting more staff support for the project to help with dedicated focus as well as a partner in brainstorming. Prior to this addition, the team was primarily only the one individual who fire learned about the intervention. They reflected:

> Well, [colleague] came and so that helped with extra capacity, and it helped just to give me a thought partner to think it through. I also think the pandemic and the resulting inequities in terms of, you know, the rates of infection and death among different people, but also the inequities that started playing out with like the sort of indirect economic impacts of the pandemic. I think that whole conversation well, and also probably, you know, last summer with everything around the Black Lives Matter movement and things are, were happening, I think all of those factors came together to create an appetite for the Secretary to reconsider the proposal.

Having additional staffing support and someone interested in brainstorming about the framework was important for HSD to move structural competency implementation forward. The current events of the pandemic and Black Lives Matter movement (*Black Lives Matter | Home*, n.d.) also played a role in bolstering a climate that was ready for an intervention like structural competency.

There are several aspects of HSD's planning process that involved thinking about how both HSD staff and the communities the organization serves would be affected by the intervention. In discussing the goals of implementing structural competency, different levels of application of the framework, or "levels of intervention," emerged (Richard et al., 2011). One participant described the possibilities in this way:

> I often find myself being like, *oh man, I'm being very judgy right now*. And, and I'll be like, *why?* You know, so that's what I want for my coworkers. I want them to, you know, that judgment is natural, but I want them to, when they're experiencing that to think to themselves, *wait, I'm being very judgmental and why, and like, oh yeah. Like I need to remember that outside of this customer's unique circumstances they're surrounded by all these different things that may either constrain or facilitate their full and like lived participation in society*. And I want them to be like, *maybe I should give them more empathy.*
>
> And then I think on the sort of policy program side, I hope at HSD, we're gonna think to ourselves, *Hey, we would like to implement this new policy change*. And then we, we ask ourselves, *Hey, but before we do that, who, who might it leave out, who's it gonna impact the most, are we recreating a structural barrier that's actually making it harder for people?* Like I sort of wanna embed that kind of process into every decision that we're making.

It is clear that the potential impact of implementing structural competency happens at both an individual level in changing one's thought patterns, which may ripple out to interactions, and from there into more community/institutional and policy impacts. As these quotes depict, the

needs of the communities served by HSD would be better met by employing structural competency at the different levels of intervention.

As the team described ways they thought the intervention would help the organization better meet the needs of the communities it serves, a tension for change at HSD also became clear. The following comments highlight how the tension for change in the implementation climate drove the structural competency implementation:

> I think because HSD is a government institution unless we're intentional we're going to continue perpetuating discrimination, oppression, bad outcomes for people's lives, if we're not intentional about examining our policies and programs and services… where we have the ability to make changes to our policies or the way that we administer benefits or programs that sort of do away with some of these structural barriers, we should do it but I don't think we have a process… so that's where I think the structural competency framework comes in.

> Because the [staff] workloads are so high and they [staff] have to meet quota and they deal with the same attitudes and the same type of people over and over it's very easy to shut off the care button. So I think this training is super important to try to help us to remember why we're here to begin with we're here for the people and we're here to help them.

These comments elucidate several aspects of the tension for change at HSD that generated a need for implementation of structural competency. The first comment highlights how staff hold negative perceptions about customers that turn into outspoken negative comments about customers; the hope is that structural competency will stop this pattern and create more reflection and empathy. It also shows that there's a need to build understanding that everyone has unique experiences with structural forces that influence one's outcomes and specifically one's ability to move out of poverty, and therefore to move away from needing HSD benefits and services. Similarly, the pull yourself up by your bootstraps mentality needs to

change. HSD is at risk of unintentionally perpetuating structural barriers for people without structural competency, and there's a need to remind staff why we serve customers and of our true purpose. All of these reasons highlight that the current climate at HSD is untenable and will change for the better with the help of the structural competency framework. Multiple of these comments also highlight how difficult the pandemic has been on everyone and has even played a role in perpetuating negative mindsets.

In explaining the tension for change that brought about structural competency, several comments also depict a different vision for the future. One participant summed it up well by saying, "we need to help our employees to remember what it's like to be empathetic because it's pretty much been forgotten." The following comments further highlight what the team envisioned to be different when HSD implements structural competency:

> It is possible that this would bring more joy in work, less burnout, as people might feel more connected to the work they do. It is also possible that eventually benefits and services would become more aligned with the needs of the community, especially if they are included more as partners in the process. So generally people will be treated with more dignity and respect and be seen as partners with HSD as opposed to looking down on them.

> And so I think, I think that's some basic human principle of life or negotiation. You always wanna understand the other side. And so, yeah, I think for me it's promoting, like I don't wanna say data gathering cause it sounds impersonal…so I think promoting understanding for, you know, seek first to understand then be understood.

Empathy comes up several times as a key driver for the intervention; the HSD team hopes to (re)build empathy in staff specifically for the experiences of HSD customers as well as for themselves and each other. By seeing people differently first, customers will hopefully become

partners in the process and in turn, improve how HSD benefits and services actually meet their needs.

Better meeting the needs of the communities HSD serves by implementing structural competency is very important to the HSD team. As one participant explained, “it's important for our customers. It's important for our leaders ‘cause they're delivering goods, you know, services to our customers. And it's important to our frontline staff.” The following comment further described how both staff and customers will be affected by the structural competency implementation:

> I think it'll also help us to be faster and be more motivated. I honestly do, because if they're experiencing empathy with the person it's gonna help the communication between the [field staff] and the client to be better, because they're trying to be more understanding, which will help them get through the process of doing the completion of the application or whatever it is that they're helping them do, which will in turn, help them to be able to get through the process faster and get our numbers up. So I really think it's gonna have a ripple effect.

HSD staff and customers are structural competency’s core intended audience and affected group, respectively. The desired impact on these groups appears to be a driver for bringing structural competency to HSD. The comment also highlights how structural competency, and more empathy in general, will assist the individuals processing applications for HSD benefits and services in being more effective at their jobs, listening more effectively up front, and ultimately will streamline the processes for both staff and customers. As one participant summed up, “it's all about your customers. Like it's all about your customers. Like the only reason you would ever do this is it's about your customers.” Improving how HSD works with its customers is clearly a motivation for the implementation work.

Finally, with respect to planning implementation of structural competency, the team discussed several considerations for sustaining the intervention. One area of concern is dedicated staffing to continue and maintain the implementation work at HSD. As two participants explained:

> We will be presenting a budget request in upcoming legislative session for an FTE to lead this project. Unfortunately funding wouldn't start until July of 2023 if it is approved, but if we are able to get a funded position that would immensely help make this project sustainable.

> I think having the support, like being part of a national network, of different government entities and different levels (federal, state, local, whatever) who are trying to do this too, that I think would be super helpful in terms of sustaining it because yeah, I'm sure there are people out there who have done some of the things we were talking about and that's really helpful.

It is evident that the team believes they are in need of full-time staff support for this project, including trainers, and they will present a budget request to the legislature requesting funding in the upcoming session.

There are additional sustainability considerations that the team explained as part of their planning to implement structural competency. The following comments highlight these ideas:

> Without having some sort of division led workgroup of some kind, just not even like in terms of capacity, but if like, if I can't manage to get the buy-in of at least one or two people from every division, like excited about this and motivated about this and truly wanting do something about it, then it won't happen. And I don't want this to be just something that people are told to do. I do feel like I have the capacity to communicate in such a way to get people fired up about it, I just have to make sure I do that.

Other suggestions are to include the framework in employee orientation. This quote depicts the importance of getting people across the organization trained and invested in structural

competency work so that it is saturated in the organization and not simply something people are told to be involved in. It would also benefit the organization to include structural competency in the new employee orientation.

Engaging

The next part of the implementation is engaging, which for the HSD team includes more discussion of the tension for change at the organization, the desire to build empathy, and involvement of leadership and other organizations. Regarding the tension for change, one participant described their response to the team showing an employee's derogatory post about an HSD customer; this post was how the team initially engaged the interviewee in the structural competency implementation:

> I think that just showing what has been happening is gonna help leadership to see, okay, yeah, no, this isn't right… It's good putting that first and foremost, it opens our eyes because you just think, well, you know, they're tired. Well this, well that, and you know, you don't think about it… I think is what helped me to see, wow, that person is who we have helping people to apply.

This comment highlights how important it was to depict the tension for change at HSD as part of the process to engage more individuals in the project to implement structural competency at HSD. This individual was clearly moved by the Facebook post, which generated an understanding of the problem at HSD which may very well be addressed by bringing in a structural lens.

The tension for change naturally leads into a conversation about why it is important to build more empathy at HSD. As one participant explained how structural competency will help address the needed changes within the organization, "the main key is the empathy, because that's what this whole training was about. It was just about trying to remember why we're

here in the first place." The current HSD climate appears to lack more empathy than the team would like and it is evident that they believe the structural competency intervention would help to bridge the gap and increase empathy for staff. As stated earlier, HSD customers are the individuals who the team hopes will ultimately benefit from structural competency at HSD and this comment highlights how staff need to remember that "they're humans."

Leadership engagement and connections with other organizations also emerged as important aspects of HSD's implementation. One participant described the team of stakeholders for the implementation by saying, "I do see the leadership as a stakeholder group, because if they're not gonna buy into it, then we can't do it with staff." They further described:

> Legislature, I think is a key stakeholder where I think when hopefully if we are able to succeed in our pitch for this, I think we probably have, at least I could probably think of a couple legislators who would be interested in this. The governor's office was also interested, but the person who expressed that interest is no longer there. But I could probably find someone if I really wanted to…and then other agencies I'm sure would be really interested, once we sort of got our bearings.

The HSD leadership and individuals that helped before the leadership training pilot launched are key stakeholders for the project. It is also evident that there are other interested groups in state government, including members of the legislature, individuals at the Governor's office, and other state agencies. These potential future collaborations appear to be important drivers of HSD's work.

Executing

The final phase of the implementation is executing the plan. HSD is still in the process of executing their plan and the team described several visions for the future. One participant described HSD's work thus far in detail, outlining three phases including training,

communications, and leveraging tools all with the goal of bringing a structural lens to HSD. The participant explained that they started with a pilot training to get leadership on board and aligned the training with the five core skills of structural competency (building the language and recognizing structures, moving into shifting our perspectives, considering interventions, and building structural humility). Leadership agreed that the training would be valuable for staff and the team is now working on the staff rollout. In describing the training, they commented:

> I've felt this underlying anxiety the whole item about whether we are doing the right thing or have chosen the right topics, there's always more we can do and so perhaps we will do a second round later, but I do feel like this was a good first training.

This quote highlights the unease this participant felt in creating the training and making sure they are presenting the right information. After the initial pilot training, they worked with the Communications Director to build a social media strategy (e.g., LinkedIn) with regards to quarterly posts, and hope to build this part of the project more in the near future. The other part of the plan includes an inventory of tools to help HSD bring structural competency into their work including areas like program and policy development or customer service. The data shows that HSD's leadership team is a core stakeholder in the project as is the pre-training team mentioned earlier. Communications are another goal of the effort but have been given less focus with shifts in the Communications Department at HSD. The other arm of the implementation includes leveraging tools to begin working with HSD policies, programs, and services. Another participant described the attempt to focus on concrete steps/tools like LinkedIn:

> I think at the same time we're trying to do that a little bit externally with our LinkedIn posts and things, trying to show that we're at least trying to use that language with external audiences. Then we'll roll it out to staff and try and pollinate, see if we can identify some champions who can help us with trainings and see how many staff we can, you know, train and maybe get to think differently.

This comment highlights how HSD is executing the implementation plans they created that focus on building the language, reflecting on one's own experiences and interpersonal interactions, and communicating about what is being learned. The training has been deemed relevant for all staff and the team will next work on a plan and execution for that goal. One team member reflected on the training and advised, "don't miss a training because if you miss one…you're not gonna get the full picture." This is an important takeaway of ensuring that training participants attend all of the training to the best of their ability.

The team also commented on examples of areas where HSD programs and policies are already structurally-informed. For example, the following comment shows areas where HSD programs are impacting customers in a positive way that relates to structural competency:

> I do know that child support modernization is a good example of alignment with the framework. By right-sizing orders, working more with the reality that exists for noncustodial parents (NCPs) rather than having unrealistic expectations and requirements for their payments, and generally aiming to treat NCPs with more dignity, respect, and partnership in the child support process. Less punitive, more collaborative.

Other relevant programs that were mentioned include temporary assistance for needy families (TANF) and postpartum Medicaid coverage. These comments highlight the increased awareness gained through the new knowledge of structural competency that has allowed the team to see things differently. There seems to be value in the team being able to picture how

their programs and policies are already making a structural impact on their customers and understand that as the implementation progresses, even more impact is possible.

What's Next

The team also discussed their concerns as well as desired next steps with implementing structural competency at HSD. One team member said:

> I feel very confident in our ability to implement the framework at HSD, assuming we have the time we need. That is always the challenge, dedicated time, especially working in an organization that has handled a lot of pandemic-related efforts. It is such an unclear time and hard, in general, to plan for anything and therefore this bit of uncertainty is always at the back of our minds, but I do feel confident that the organization is ready to implement, but we do need more dedicated resources.

This comment again reinforces that HSD needs to secure funding for dedicated resources, both time and staffing, in order to keep the structural competency work going. As for what HSD might be doing in the future, the team has a clear vision of what they hope to achieve with respect to structural competency implementation. This vision includes involvement across all divisions of the agency in keeping the intervention a key part of their work. It also includes being seen from the outside as an organization that truly cares about their customers and makes a point to address structural barriers they face.

Doña Ana Wellness Institute Implementation of Structural Competency

Introduction

Study participants from the Doña Ana Wellness Institute represent a mix of CFIR implementation roles of opinion leader, implementation leader, and champions and all three are at the executive or senior leadership level within the organization. 66.67% or two of the

participants have been with the organization between 4-10 years and 33.33% or one individual has been with the organization for over 10 years. In analyzing the three DAWI interview transcripts, all CFIR domains (process, inner setting, outer setting, intervention characteristics, characteristics of individuals) came up as important in their implementation of structural competency.

The process story is told following the process domains of planning, engaging, and executing. Some comments related to events and beliefs that occurred before official implementation planning began and these are included in the planning phase as the catalyst for starting the project. The pre-planning comments mostly described intervention characteristics and personal attributes. Planning for implementation included learning about the intervention and starting to make plans for its use, describing how the implementation climate and organizational compatibility play a role, explaining how those served by and connected to the organization were going to be involved, and thoughts about sustainability and integrating the framework with the strategic plan. Planning, engaging, and executing overlap for DAWI as is natural in an implementation process. Thus, there's a section on planning and engaging overlap, which included discussion of levels of intervention, then engaging alone which included discussion primarily on cosmopolitanism. Finally, executing and sustaining the implementation efforts are discussed at the end of the story.

Planning

Planning use of the structural competency intervention at DAWI started with key individuals learning about the framework and figuring out how it could be used. One member

of the team from DAWI is responsible for bringing the framework to the organization. In recalling how they learned about the framework they said:

> So I actually just came across an article that some of the people who originally developed the concept had written, I think the article was written in like 2014. I think I ended up reading it a couple years after it was published.

They reference learning about the framework in an article and also mention the Structural competency Workgroup as the intervention source.

The framework has the potential to be adapted for different contexts, an important point given DAWI is using the model outside of the traditional context of clinics and medical education. One participant recalled understanding the adaptability:

> We saw that it had such value for physicians that we thought, *well, we shouldn't stop there*. It has value for people in the healthcare and the social service sector across the board. So we really were looking at how do we transform the healthcare delivery system, knowing that the healthcare delivery system is related to every other system within that whole public health social service field. And this was an approach that was global enough, we thought, or universal enough to be applicable across all of those different sectors or fields.

The belief that the intervention could be adapted for a different context and to meet the needs of DAWI was an important step in the implementation planning process.

Next, the team did a lot of thinking and planning before they were able to implement structural competency. They felt personally comfortable with the framework itself, however, the specifics of implementation were a challenge. One participant said, “so for me again, like theoretically I felt totally comfortable with it from the very beginning. Like it was speaking the language that I speak” and “ the implementation part was what was challenging for me to

think about." Clearly, the framework made sense but how to implement it was a looming question. Another participant recalled:

> I don't know if I would say challenging, but I think where we had to get in the mindset of how this is sort of an overarching framework. This is not in place of social determinants of health, cultural competence… it is that structure, that framework that can support all of that and more, so I think it was just getting to that mindset of like, where does this fit in all of our other efforts.

This quote highlights the importance of thinking about the new framework and how it relates to the organization's current and ongoing efforts. Shifts in thinking to apply structural competency in an overarching and higher-level manner were key for the DAWI team.

The Structural Competency Workgroup (Structural Competency Working Group, n.d.) was referenced several times as important in helping the DAWI team to learn more about structural competency, to see examples of how it's been used, and especially to think about how specifically to adapt and implement the framework in this new context. Interviewees described the value of the structural competency workgroup in these ways:

> I did not feel confident at all…and then when they came and did the longer training is when I really did. I think after that, I felt like, okay, yeah, we can, we can do this. And I think I felt like that partly because I better understood the framework and I had more examples for how people had used it in their work in the past, but also because we were developing relationships with people who'd been doing it already in their programs and so I felt like I had people I could contact if we were struggling with anything.

> So we had pretty good support from the original group that deploys this training… They helped us take their original material and apply it to a different audience. So that was a very helpful process to be a student, I guess, a learner, and then graduate up to a facilitator or a teacher.

The workgroup ultimately supported DAWI in feeling comfortable adapting the framework to meet their needs. As one participant summed up, "[we] talked about bringing the trainers to come and train us... following that training, there was both excitement and a feeling like, oh yeah, we can, we can do this, we just need to adapt it." The ongoing relationship with the workgroup is also of strong value to the DAWI team and salient in their ongoing work with structural competency. In giving advice to future implementers, one participant suggested the importance of "leveraging the existing structural competency network to brainstorm and help you as you go" and knowing that "there are more and more people around the country who are implementing this framework in different ways, so you don't have to reinvent it." The value of the workgroup and global network relates to a concept that will be described in more detail later, that is the importance of cosmopolitanism or the degree to which an organization is networked with other external organizations (CFIR Research Team-Center for Clinical Management Research, 2022).

Similarly, leadership engagement within the organization itself was a key step in the process of building buy-in and driving the intervention to the implementation phase. In discussing their outreach to an individual at the organization with more agency, the individual who first learned about the framework and thought it would be useful for DAWI recalled:

> I don't think I had quite as much voice or power as I do now…It [structural competency] seems overwhelming like we talked about before. And so I think, you know having the new person in the organization be like, *Hey, let's do this super difficult thing* is probably not gonna work out very well. So, that was my strategy, you know, at the beginning.

And another individual reflected on the importance of their involvement in the process given their leadership in the organization:

> And I think for [them] to get up there and say, *Hey, I wanna do this* would be more difficult. Um, and I think [they] were provided, um, an opportunity for their voice with me and through me to make a lot of that stuff work.

These individuals leveraged their relationship with and the inherent hierarchies of organizations to drive the intervention forward. The involvement of a leader in voicing and showing support appears to have been a fundamental step in the process for DAWI to implement structural competency. It is also clear that involving the right people was important for DAWI. One participant said:

> Identify people who are gonna be, I don't like the word champions for some reason, but people who are gonna be really invested in it, who will support the work. Yeah, I think both within the organization and also outside the organization.

Intentionally building the team and involving leadership from the beginning have been valuable to DAWI in their implementation.

It is evident from the data that the structural competency framework provided a relative advantage over other frameworks and that the team felt it was a beneficial framework to use. One participant reflected while comparing structural competency to the socioecological model:

> I think the structural competency framework kind of takes that one step further and then says, okay, what can you do? How can you intervene at multiple levels to be able to address the health inequities and the injustices that we see? And I think it provided a more sort of actionable framework.

Employing structural competency added value in ways other frameworks haven't proven to for the organization and allowed them to move to action in addressing disparities. Another participant similarly commented on the added value from the framework:

> What I think has been important about structural competency framework is that it's just helped us kind of come to come together around kind of a shared framework and a shared language for thinking about the work that we do…it's really helped us prioritize and it's helped us communicate better with each other, helped us identify like where the different work that all of us are doing kind of fits into a broader picture and make the connections that we may not always have made before.

It is clear from these comments that there is a deep rationale, via relative advantage, for DAWI in implementing structural competency over other interventions. The intervention provides action, helps the team sequence and focus their work, and enables the team to both see the bigger picture and where their individual work fits in.

The framework also appears to have been clearly aligned and naturally compatible with the organization in numerous ways. At its core, as one participant noted, structural competency "was aligned already with the vision and the goals of the wellness Institute" and "so when the structural competency came out, we presented this framework to the Institute and the Institute immediately said, oh yeah, we can use utilize this as part of, you know, implementing change to our community." Bringing the framework to the organization was an easy sell because it was already compatible with and connected to the core values and vision of the organization. The following comment further depicts the organization's compatibility:

> The mission of the Wellness Institute is for Doña Ana county to be the healthiest county in the country…and I think, you know, like I said, we already sort of had a similar set of ideas to structural competency prior to introducing the framework.

The ability to envision how the framework would be used by several individuals within the organization to reach existing goals made it relatively easy to bring the framework in. Another participant reflected on the compatibility between structural competency and DAWI by saying, "plus I think in general, people are very open to these ideas." It is clear that the inherent

compatibility between the organization and the structural competency framework played a vital role in their ability to implement.

In discussing the strategy and plans for using the structural competency framework, several DAWI participants in the study mentioned that the framework sort of just came about. For example, one participant said:

> We didn't strategically intentionally go out looking for something. It kind of fell in our lap and we went, *Hey, this that's perfect with what we want to do*… so this honestly just fell in our lap and it fit what we all talked about, our kind of mission and vision and approach that we wanted to have.

The natural alignment with the framework combined with the somewhat serendipitous arrival of the framework is essential in the implementation process for DAWI. Similarly, in response to a question about the team involved, one individual reflected, "I don't think we were that intentional about making these decisions, the way the wellness Institute works, it's there really are just leaders that have naturally emerged." This further highlights the theme from DAWI about the framework just coming to them and the team naturally developing without a specific strategy or intention.

The involvement of a diverse group of stakeholders and perspectives and inclusion of the community has been important for the DAWI team. One participant described the team:

> Our advisory group is the one of the groups that's kind of ensuring that we're remembering that framework and using that framework as it's useful, which it has been for everything that we've done so far so that would be [interview participants], we also have someone from the community foundation cause they're our fiscal sponsor…. we also have someone who represents a payer …trying to have representation from different stakeholders in our community… and then we have the course that we're developing and that, that team has fluctuated a little bit, we've tried to invite people to it… we've tried again to have that kind of interdisciplinary

perspective.

It is clear that including a panel of diverse experiences and perspectives has been key to the DAWI implementation and gaining the involvement of all desired individuals is not without its challenges. One participant also reflected, “I would probably involve more people just because now I see the broader value to this. So I would probably have involved more people in a broader, I guess more diverse group of people at the beginning.” It is evident that the team both felt that diversity was important and that they could improve future projects by getting more people involved earlier.

The importance of diversity is a concept that extends to external collaboration as well. Connections with other organizations, or cosmopolitanism as CFIR refers to it, can support implementation processes and clearly has for DAWI. In some instances, the team felt there is sufficient connectedness and in some areas of their structural competency work they are seeking more. For example, one interviewee said, “a lot of the folks that we’re tapping into are people that have some real-life examples and can share real-life examples that we're using to build into the training.” This highlights the added benefits to the DAWI team of involving those served by the organization in the implementation of structural competency.

Cosmopolitanism comes up in discussions about why structural competency is important in serving and connecting to the community as well as in thinking about the sustainability of the implementation and imagining desired outcomes. One participant noted in discussing what happens after their training is deployed:

> So both we'll request feedback about the course itself, but also, you know, if people want to continue to engage with this or want to kind of become part of the Wellness Institute, if they're not already, we will have ways of people being able to get involved

> in that. And I'm hoping, we have historically in the Wellness Institute, there are some kind of sectors that have been much more involved than others. So I think one of the things that we're hoping is that, if we can, provide some useful tools and frameworks for people that they may get interested in participating more in the Wellness Institute itself.

This quote depicts a clear intention for the wellness institute to grow in involvement because of the structural competency framework. The Wellness Institute has also already grown in its connections because of the structural competency framework. Two comments depict the importance of cosmopolitanism to sustainability and growth:

> Um, and then the other thing I would say about sustainability is that we have just recently started talking with the New Mexico Primary Care Training Consortium about this model and thinking about how we might use it with other residencies in the state. And so I think there's some potential for additional stability and sustainability if we can engage that organization in some of the work that we're doing

> And then just promoting this certification through NMSU (New Mexico State University). I think that is just built-in sustainability if we demonstrate great enough need and people, you know, interest, in it then I think NMSU will see that, oh, we've got a lot of interest. We better, we better support this.

The potential for additional structural competency work through connections with other organizations provides an opportunity for sustaining DAWI's work. The course through NMSU also has the potential to generate additional support if it is successful.

The DAWI team also referenced several times that their strategic plan provides an opportunity for sustaining the structural competency work. One interviewee explained the process, "we're developing a strategic plan that has actions that we wanna take. And so this framework really helped us refine those actions and focus them on the issues that we're most concerned about." By aligning the framework with the strategic plan, the team believes their

work will become more directed and focused. The following additional comment further depicts the added value of connecting structural competency and the DAWI strategic plan:

> Yeah, so it's part of our strategic plan for the Wellness Institute. And so, um, you know, we actually use the framework to think about how we prioritize the work that we wanted to do in our strategic plan so it got really integrated into the core of, you know, what we're doing as an organization.

Structural competency will help the team to focus on areas of their strategic plan that are of greatest priority. By aligning the strategic plan with the framework, the team believes they can continue the important structural competency work in an organized and directed way. This, they believe, will also make their work more concrete and actionable as opposed to simply gaining new knowledge and perhaps not making clear action from it.

In planning to implement the intervention, meeting the needs of those served by the organization was an important consideration for the DAWI team. One interviewee discussed their perception of how structural competency is important for the communities they serve by saying:

> I think we always understood that we're not going to be able to address the huge health disparities that we see in our county or between our county and other places in the United States by addressing each person individually and trying to address individual needs once they're already needs, but we need to take several steps back in that process and really work to create communities that give people every opportunity to live their healthiest life. However they define their own health.

This quote accents the importance of structural competency work in centering, empowering, and partnering with the individuals that are being served by an intervention or an organization; this concept aligns with the comment about providing a person with the best opportunity for full health as defined by them. The comment also begins to show how

structural competency can be applied both at a micro and a macro level, or the levels of intervention as they are often referred to in relation to structural competency. Another interviewee similarly connected structural competency levels of intervention with meeting the needs of communities served:

> I think it's a more feasible and effective approach. For so long, it's been focused on behavior and us telling people you're not behaving correctly, your behavior is causing your illness. Your behavior is causing your poverty, your behavior; and that's not getting us anywhere, there's no change happening with that approach. So I like this approach because it doesn't take that away there's still individual responsibility, but it shows all of those different levels. There's my responsibility. There's our interpersonal, there's community, there's clinic, there's policy. I like that it shows all of the different levels of, I guess, responsibility or accountability.

> It can be very complex, things that you talk about and change, or it could be something very similar. We changed the office hours, the time that were open, 'cause we went, *oh, wait a minute, if we want people to come, but we don't want 'em to lose their job. And maybe we should have some flexible hours.* I mean, it's something that simple or something more complex, like let's change the policy around harm reduction or something.

The shift from behavioral change alone to a focus on the layers that surround a person and all of the potential areas of intervention is a pertinent shift that structural competency offered to DAWI, pushing the team forward in the implementation process.

Planning/Engaging

These concepts of meeting the needs of communities served by DAWI and considering the levels of possible intervention for structural competency are further addressed as the DAWI team moved forward in their process. The next phase in implementation after describing their planning process for using structural competency is the engaging phase. For the DAWI team, it is evident that there is some overlap between the planning and engaging phases as

the team continued to iterate on their plans as more information was gleaned from engaging with stakeholders. This section will describe findings from the overlap.

It is evident that the team considered possible levels of intervention for structural competency as a focal point for meeting the needs of those implementing the intervention as well as those served by those implementing the intervention. This point was often used as a focus of communication about why structural competency was valuable. One interviewee explained:

> When we do the awareness training, we really focus on the different levels and examples of what it looks like, what does structural competency look like in the individual, the interpersonal, the community. So I think having those examples is an important piece. The other piece that I like about it is it starts to naturally make you think about that root cause, but why, but why, but why. And again, then, you end up not at the place that you think you're gonna be, 'cause it's not, *oh, they don't eat righ*t. It's *oh wait, where do they live? Where do they shop at?* So it takes you back to that root cause and it's kind of an, it starts that automatic thought process.

The levels of intervention provide a way to operationalize structural competency and shift the way one thinks about health. This shift in thinking is an important goal for implementing structural competency work and comes through in the way DAWI engages individuals through awareness training.

Not only do the levels of intervention enable the desired shift in thinking more structurally, but using the levels also appears to make the framework overall more accessible to both the DAWI team and to others new to the framework. One interviewee reflected on it in this way:

> I mean, people really saw this as a valid model and I think what makes it so valuable is that it puts in front of you things you can do as an individual that make a difference. Right? So I think people are really worried about, I don't know, our immigration policies

> and how our asylum seekers are harmed by policies, et cetera, et cetera. And then like, *how can I battle that?* Oh, when there's an asylum seeker in front of you, what are your unconscious biases that could negatively impact? Then address your interpersonal interactions and provide them with appropriate interpreters, you know, and you can just take it from an individual to an interpersonal to a clinic level all within your own scope, structurally, and then you can take it all the way to the roundhouse, or you can take it all the way to the white house if you'd like to. And, but, I think the nice thing about the structural competency framework is it shows levels of intervention that most of us can address.

Thinking about structural competency in terms of the levels of intervention breaks down the framework into approachable and addressable steps, making the framework less overwhelming and overall more accessible. Thus, the levels are important in depicting how the intervention moved from planning to engaging process domains at DAWI.

Engaging

The next part of the implementation is the engaging phase, which includes communicating about the structural competency framework, implementation climate considerations of gaining support for the project, organizational alignment, cosmopolitanism, and meeting the needs of those served by DAWI. Previous descriptions of the engaging phase were considered an overlap with planning and the subsequent section will describe pure engaging activities.

The levels of intervention continue to be important in how the team communicates and engages individuals in the structural competency work. In response to a question asking what the most important points are to communicate about the framework, one participant explained:

> The health of individuals is directly related to where they live, work, and play…. people need to understand that the components of where they live, work, and play are

> affected by the policies that govern them and the policies that surround them…one of the major structures that surround individuals is racism, right? And so, you know, addressing your own biases goes a long way, creating–wherever you live, work and play–creating environments that allow for diversity goes a long way, just different structures. So teaching people that primarily that it's structural that affects health, that it's policies around that, and that individually you can play a role.

This highlights the importance of communicating that there are different ways to look at the structural causes of one's health status and it is important to look at the bigger picture but also to consider what one might do at an individual level to make a difference. Further, participants talked in more detail about employing the levels to engage people in structural competency work:

> I do think that's been helpful in talking with community members, especially with people who aren't already bought into this idea, to say that well, there are multiple things that you can do. You can start out by just like taking five minutes and reflecting on like how your own bias may have influenced your behavior today. And that's part of it. So I think it's important to be able to start conversations with people who may not be totally on board with this idea that like, this is the most important work we can do to address health outcomes.

> I think the weakness in it could happen if you only talk about policy and people feel, unempowered that they don't have an ability to address it all. But it, I think in any structure, you can go all the way down to the individual level and make a difference.

It is evident from these quotes that the DAWI team feels the levels of intervention provided a mechanism to describe structural competency in an actionable way that people could connect with. It is helpful for bringing clarity and understanding to the framework in general and for making apparent that there are several ways to get involved with and make change using the framework. The levels help to remove potential overwhelm when first learning about the

framework by grounding the possibilities in actionable change on several different levels. With understanding the importance of levels of intervention come a few caveats from the team:

> There's multiple levels and that you should start looking at each individual level within your organization and tackle the ones that are the lowest hanging fruits. So, you know, the individual, interpersonal levels by far, I think the easiest. But you can start off with, you know, one policy from Medicaid, one policy from our front desk, you know, and then move that forward.

> Once you identify those different levels, you know, people may sort of like home in on one specific area that they wanna work in. And in some ways I think that's really great because if that's where people feel like they can have the most impact based on whatever their resources, their skills, their experience, then I think that's really great. But I think you also run the risk of forgetting about the rest of them. And so I think that's one of the things that we have to just keep reminding ourselves, as we are saying, *Hey, you don't have to do everything*, you know, reminding people that, that doesn't mean that there's not a bigger picture.

Starting with the easiest levels to address and ensuring that people don't get stuck at an easier level appear to be important lessons from the DAWI team with respect to how to effectively employ the levels of intervention.

Structural competency implementation has influenced the desired shift in thinking for the individuals and organizations DAWI works with. The following quotes described the importance of the framework in enabling this shift to happen:

> And some people have actually done various interventions without, what about the vocabulary? And so, you know, I think bringing the framework in and bringing the vocabulary helps a lot too. Yeah. So, our goal is to get people thinking in that framework.

> This is a framework that helps you see where you fit and you don't have to try to do all of it all by yourself…Like there are other people who are doing this work and sometimes the best thing for you to do is support the work that other people are already doing. And this framework can kind of help you see where the different levels

> and where different people are working and kind of be able to make those connections.

The levels of intervention help individuals shift their thinking to see where they fit and where others fit, leverage expertise where it already exists, help to create a shared language, and enable a shared vision of what needs to happen. The levels prove highly valuable in the DAWI process to plan and engage stakeholders in structural competency work.

Another important principle for communication and building buy-in for the framework at DAWI is repetition. One participant said:

> I think it had value to do some of the small, like, just 30-minute presentations at different meetings about structural competency. Cause not everybody again is gonna take the full workshop or go through the whole certification. So there has to be that initial sales pitch, I guess, about it, like a teaser, to kind of get people interested and just start explaining what this language means and getting people familiar with the terminology and the language within the model.

Building a shared language and understanding and meeting people where they are, whether attending a full workshop or small presentations, was important to the DAWI team. That said, the natural alignment with the organization and the framework was equally valuable. As one participant noted, “we had a lot of support, but from people who already thought kind of this, this way, they already had that mindset.” The alignment was important, however, it was still critical to ensure a shared understanding of the model and build shared language before moving forward with implementation. Similarly, the team reflected on the importance of adapting the language to meet their needs. One individual explained:

> We've adapted is the levels of intervention a little bit because the original levels that we were taught in the training that we did is there's a clinic or institutional level, and that's not applicable to everyone and so we've used some different language about that…. so sometimes we'll use like your work environment…and the other thing that I

> think we've adapted a little, we're kind of working, I guess, on adapting right now is that policy level gets separated out as its own level, but policy happens at many different levels….we might wanna rethink, you know, how we're explaining those different levels and maybe research and policy get integrated into multiple different levels instead of being separate.

Building a shared language and ensuring it is a language that speaks to those involved has been evidently valuable to the DAWI team.

The connections DAWI has with other organizations have proven important in their structural competency implementation. DAWI is inherently cosmopolitan in its organizational structure, as one participant explained the group makeup and the ease with which they were brought on to structural competency:

> The Wellness Institute was comprised of people from the College of Health and Human Services. So it was health work, nursing, public health... Doña Ana County Fire Department… leadership from the hospitals, leadership from the residency, and leadership from the federally qualified health centers… We continue to have part of the judicial system associated with some of the work we do… once in a while we do have food bank people, as well as the Las Cruces Police Department participate in some of the work we do, and components of the Las Cruces Public Schools.

The natural involvement of many different stakeholders with many perspectives in the engaging phase as in the planning phase has been crucial to DAWI. DAWI has also used its work with the framework to continue to build connections as well as to spread the important work of implementing structural competency. After describing bringing people on to the framework so easily, the individual went on to describe the team's intentions for next steps:

> I think what we would like to do is, is now that we planted the seed to get it in writing to get it in policy, to get it in council. Where is it being worked into what the county does, where is it being, what the city does, where is it being worked into what the university does and those are the three major players in our county.

It is clear that the connectedness of the organization is important in how they have engaged stakeholders in the structural competency work and will help them reach their goals in spreading the framework further with the university, city, and county.

The structural competency implementation at DAWI is also intended to help the organization grow its reach and involvement in general. One participant explained the implementation as important for the communities they serve in this way:

> And so I think for broader communities, I mean, my hope is that that course will help other people sort of in similar ways to how it's helped our, the residency and Wellness Institute, not necessarily to change what people are doing, but to put it in a frame that kind of helps make connections that maybe people weren't able to make before. And then also I think that makes it easier for us to collaborate right, with other community organizations…if we kind of have a shared framework and a shared understanding, of how we're doing our work.

The framework provides a common language and view of the work that will hopefully make it easier for DAWI to collaborate with additional community organizations. Structural competency allows for expanding the current level of cosmopolitanism that the organization has. Clearly, structural competency implementation has allowed for the organization to engage with stakeholders and communities in various ways that are important for the organization overall, the communities served, and the growth of DAWI.

Executing and What's Next

Next in the implementation process is executing or implementing the framework according to plans (CFIR Research Team-Center for Clinical Management Research, 2022)**.** As with planning and engaging, there is some overlap between engaging and executing as engaging stakeholders in the process was discussed. One participant described building buy-in with the team:

> So I would say like the Wellness Institute, we didn't really have any naysayers. So, on that side it was more just a process of, I mean we did have to talk to people several times. So like we did the training and some people were able to be there and other people weren't. So we did kind of a refresher after that and then, you know, have presented the concept multiple times, but that group is a little bit self-selecting in terms of like, they, they kind of already wanted, you know, they were already on board, like before they even knew what structural competency was.

The natural alignment with DAWI and the structural competency framework helped as the team moved from planning to engaging to executing the implementation. DAWI's implementation climate proved compatible with the framework and with the plans laid and therefore the team did not experience any pushback to implementation.

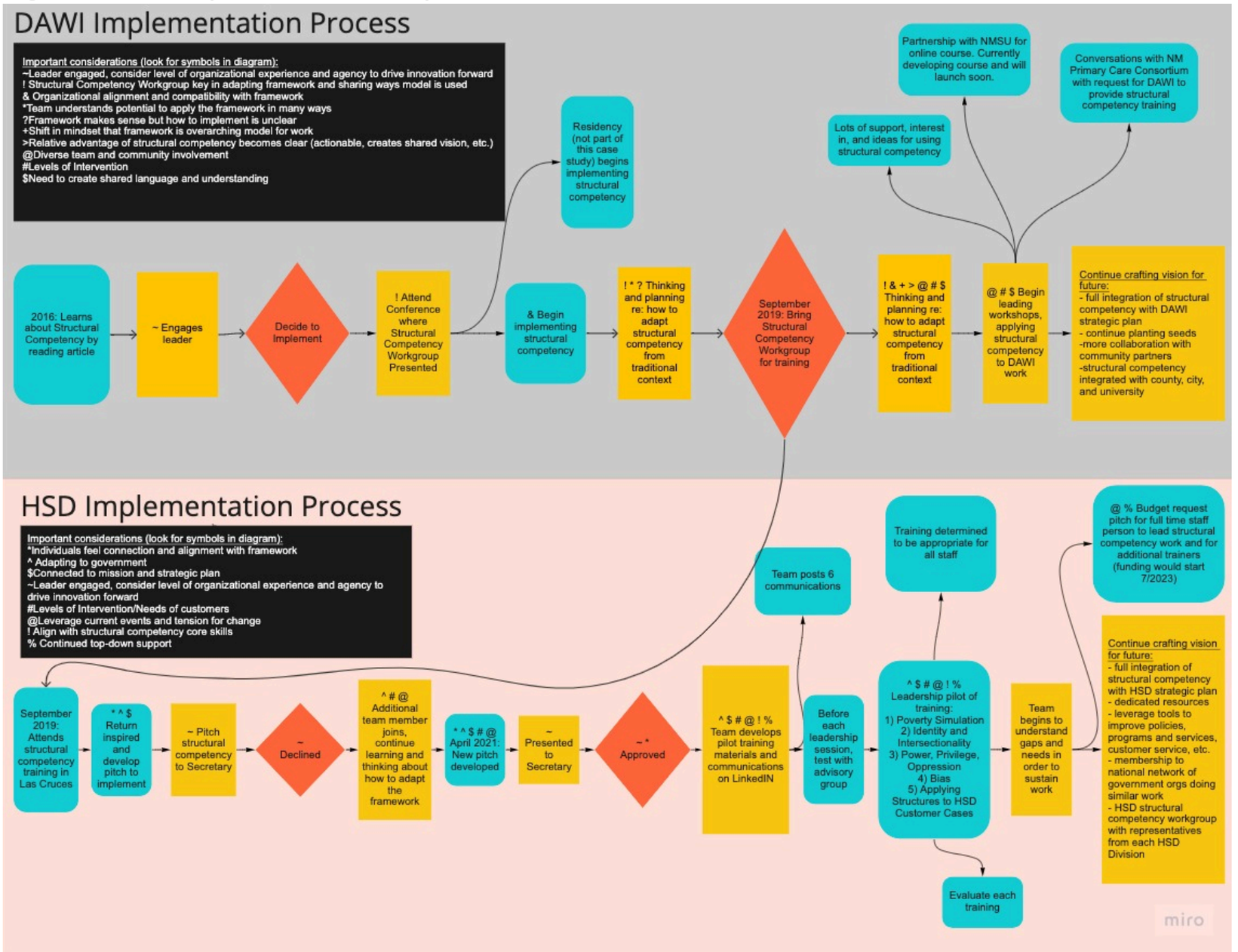
In the interviews, the team only made a few direct comments about their execution of the structural competency work. One participant reflected, "I think really the most important thing for the Wellness Institute was planting seeds, is what we're doing." This highlights the team's view of DAWI as a central hub of structural competency with the purpose of spreading the framework to others. Another participant said, "so sometimes I'm using like the tools, but not necessarily using the word." This is important as it shows the value of the work but not getting caught up in calling it structural competency, building on comments earlier that the name of the framework can be off putting. The work, for DAWI, is more important than the name.

The conversation then shifted towards what is next for the organization with structural competency and how to sustain the efforts they have started. The following two comments elucidate the team's views on what is next:

> The next steps are, I think to finish this course, the Wellness Institute is funding the development of the course. So to complete the development of that course and then, you know, make it available to community members.
>
> We already have the funding to develop the course, NMSU is providing the platform for free. So it'll exist as long as we want it to. I think the question about sustainability would be updating or adding new modules or things like that. We would probably have to get additional funding, but I think, you know, the Wellness Institute is really supportive of continuing this work. So I think, and we have, you know, the resources to be able to continue doing that. But, funding is always something that comes up as a potential issue.

These comments again highlight the importance of meeting the needs of the community served and of cosmopolitanism. DAWI plans to finalize its course and make it publicly available for free, which is made possible because of its connection to the local university (NMSU). They are aware of the concern with additional funding but also know that DAWI is overall supportive of the work.

Figure 4: Process Map of HSD and DAWI Implementation



Comparison

The HSD and DAWI implementations of structural competency are the subject of this study because they are both implementing the framework outside of its traditional context of medical education or clinical settings. As the data indicated, CFIR domains came up as important in both of the projects. One key difference is in the executing phase, where for DAWI there was discussion about implementation climate and for HSD, implementation climate did not come up. In terms of team makeup, both teams represent a mix of opinion leaders, implementation leaders, and champions. The HSD team represents 50% intermediate management and 50% executive/senior leadership level individuals whereas DAWI represents 100% executive/senior leadership level individuals, indicating a potential difference in the experience level of the team. Finally, the HSD team is newer within the respective organization than the DAWI team; 75% of the HSD team has been with the organization for 1-3 years and 25% for 4-10 years, whereas 66.67% of the DAWI team has been with the organization for 4-10 years and 33.33% for over 10 years. It is not clear if or how these demographic similarities and differences have played a role in the two projects, only that they exist. The remainder of this section will explore the similarities and differences that emerged from the qualitative data in more detail. Table 3 provides an overview of the similarities and differences between the two projects.

Table 3: Similarities and Differences between HSD and DAWI implementations of structural competency.

	HSD	DAWI
Similar	- Teams representative of all CFIR implementation roles: opinion leaders, implementation leaders, and champions - Clearly followed CFIR process domain (planning, engaging, executing, with neither at evaluating and reflecting) - Champions and leadership engagement important, as is diversity of the team - Time with organization and role important in proposing structural competency - Involvement of community/customers as well as local examples - Unintended consequence of lots of interest in the framework - Building shared understanding of structural competency language and adapting name when necessary - Levels of intervention as a way to engage people in the framework	
Dissimilar	- State government, ~1,700 employees, 1,000,000+ customers - Somewhat rigid requirements for organizational focus/operations - Interview participants: 50% intermediate management and 50% executive/senior leadership; 75% at HSD 1-3 years, 25% for 4-10 years - Not as far along in implementation - Planning guided by the strategic plan, by a felt tension for change and desire to build empathy	- County level health council, serves county as a coordinating body - More freedom in organizational focus/operations - Interview participants: 100% executive/senior leadership; 66.67% at DAWI 4-10 years, 33.33% >10 years - Farther along in implementation - Intervention was very aligned with the organization's efforts and goals, no tension for change

Similarities

There are many similarities between the two implementation stories. Both projects exhibited following the CFIR process domain and neither were at the construct of "evaluating and reflecting" at the time of data collection. Finding the right champions and team were salient points in both instances, as was taking the time to think through how to adapt the intervention. Clear and direct leadership support was also important for both projects. The value of involving community members and those served by the organization was raised by

both teams. Both projects discussed an unintended consequence of receiving a lot of interest in structural competency as a result of the implementation work. Finally, a core goal of getting people familiar with the language united the projects, as did modifying the name “structural competency” or even not using it at all, as well as using the levels of intervention to bring people into the work.

For both projects, a relatively new team member brought the idea of structural competency to the organization. Both of those key individuals reflected on their role at the time and the importance of working with others who knew the organization better and had more agency. As one explained:

> I don't think I had quite as much voice or power as I do now…And so my strategy there was to talk to somebody who had more power in the organization and sort of get that person on board, um, to say, I think this would be a really great framework. Like, can you help me, you know, think about how we, how we integrate it and sort of getting them on board, um, was I think really, really important, um, because it's, you know, not a framework that people have necessarily seen.

This comment underscores the importance of getting the right people on board and behind the idea of implementing the intervention so that they can use their influence and help drive it forward. Another participant commented, “I think being a physician, being a male, being white-passing helps a lot, seeing a lot of communities, a lot of committees, helps a lot.” This quote acknowledges the role of power/privilege, of connection, and of networks in getting people to follow your lead. The above quotes also show that it was not an easy step to simply take the intervention and implement it, but rather that for both organizations there were adaptations to be thought through and it was important to take it slow. One individual said, “that's going to take a while, like a long time. And so just to be prepared for that iterativeness”

and another advised, “I would say take it slow, don't try to do everything all at once.” Another participant summed it up well in saying, “it's relentless incrementalism and it's taking the steps where you can, not expecting the world to change.” Having a diversity of perspectives and the time to move slowly appear to be valuable in both projects.

Both teams mentioned the importance of involving individuals who are passionate about the work. As one individual said, “have the people doing the teaching and the implementation be people who are also very passionate about it and are doing it cause they wanna make a difference and wanna see a change in your organization or agency.” Clearly, finding the right team members is important. Diversity of the team also came up for both organizations. As one participant said:

> Understand that it's all gonna be at completely different places with this. And so like if you're expecting like these are like self-evident truths and everyone will buy in immediately, like if everyone buys in immediately, you might not have a diverse enough team.

It is evident from that having people involved with a diversity of perspectives and experience is valuable to the implementation efforts. Champions, engaged and passionate team members, and a diverse group of perspectives are key components of both projects.

Similarly, leadership buy-in and explicit, persistent support for the implementation work was echoed by both teams as critical. In discussing tips for future implementers, the following comments further elucidate the necessity of leadership support:

> I think if you're in a leadership position, then you should be responsible for talking about these things with other leaders. So you should talk about it with CEOs and you should talk about it with legislators and start planting those seeds. But I would tell them kind of the same thing I told you, it's relentless, incrementalism and it's taking the steps where you can not expecting the world to change.

> It needs to come from the very top. So it needs to come from the Secretary. And if you're not passionate about this and you can't cite examples in your life where everything you've ever done has led you to this moment on this topic, don't be part of the next group. Like wait, wait, and wait, and become more convinced or read some books or you know, talk to people in your family that you don't have any communication with 'cause they have these structural, you know, issue, whatever it is. Second, I think is, and it goes, I mean the first and then you have to back it up the whole way. Like you have to back it up, like we're doing this. And like, maybe some won't be that into it. It's like fine, you know, fine. But we're doing it.

Both quotes place responsibility on leaders to support the implementation in the beginning, to be determined and even tenacious in maintaining progress, and to spread it to others outside the organization. The "relentless incrementalism" is a theme of both quotes, continuing to push for the implementation as a leader even when there is pushback and not expecting everything to change at once.

The fifth core skill of structural competency is structural humility, which recognizes that this is ongoing work and that individuals/communities are experts in their own experiences and should be partners in decision-making that affects them (Metzl & Hansen, 2014). Both teams described the importance of involving the communities they serve in their structural competency efforts. One participant said, "we're also, again trying to have for that advisory group, trying to have representation from different stakeholders in our community." Two additional comments highlight the desire for more community involvement:

> I've been able to bring in community health workers and promotoras. So like making sure that it's not just an academic exercise, but that it is grounded in the community. And you know that the boots on the ground folks are part of the training, not just the recipient of the training.

> The one group I haven't mentioned though are the customers themselves. And I think about that a lot. It would be really cool if we could do a training at some point that actually had like our customers participate. And I don't know what that would look like, ‘cause I wouldn't want their participation to be tokenized. Maybe it could even just be like a listening session with like a couple customers to talk about their experiences, good and bad neutral, you know, and staff could just ask questions… we do try to bring it in ‘cause we bring the quotes from surveys and other feedback that they provide. But it'd be cool if we could do it more actively.

Both teams understand the value of community and customer participation in their efforts and seem to want to bolster this involvement even more. This also highlights the value of using local examples to shed light on the issues addressed and make it more real.

In reflecting on the unintended consequences of the structural competency implementation, both teams brought up experiencing a lot of interest from their partners and organization as something they did not expect. The following comments depict this:

> The positive response from Legislators, the Governor’s Office, DOH [Department of Health], and others, wanting us to deliver the training to them. We've reached out to either let them know what we are doing, or in the case of DOH to ask for help, and the response has been a wildly positive please give us the training. Funny and exciting, but we are also nowhere near ready and don't have funding to deliver the training outside of HSD, we are even struggling to deliver it inside of HSD with the current resources.

> So people have a lot of ideas about like what we should be, you know, what we need to be doing and how we need to be engaging, but not everybody has the time to implement those ideas. So I think our health equity action team ends up with this, you know, huge list of things that we could possibly be or, you know, new strategies we could be implementing, new organizations or agencies…and so sometimes that is a little overwhelming. And I think one of the things that's hard about it is that like, we worked really hard to get this buy-in and now people are bought in and they're having ideas and you wanna respect and honor the ideas that people are having. And then at the same time, recognize that we're human humans who can only do so much all at one time. So I think like that's, I mean, it's a positive consequence of it in a lot of ways, but it's a challenge too, to kind of figure out how to navigate that.

As the quotes show, both teams experienced a similar positive response to their efforts to get people on board with structural competency. For neither group was the unintended consequence negative, but rather something unexpected and that they don't necessarily have the resources to handle.

Language use is an important part of the structural competency efforts. The first and second core skills to be developed using the structural competency framework are recognizing structures and building the language (Metzl & Hansen, 2014). Both teams focused on getting their organization and partners to understand and use the language of the model. One participant explained their approach to bringing in structural competency by saying, "just start explaining what this language means and getting people familiar with the terminology and the language within the model." Building a shared understanding of the framework and language used is an important step in structural competency implementation. Another participant reflected generally on the use of language, "making sure that the language that we're using in this course is something that's accessible to a wide range of audiences so it's just not specialized language that may only be familiar to one group or another group." Similarly, another participant reflected on their experience with using the language:

> Try to use the language. I did not do that. I wasn't trying to use the language and every time I would talk about this training in our leadership meetings with the other managers and our Director, I would always forget the terms. So then I would just say, oh, I forgot the term and I'd move on. I didn't try. I really didn't try to make it stick in my head and now I regret that. So that's one thing I would recommend is to try to try to use the terms in there and to try to really apply it as you're learning it.

It is clear that building the shared language that's accessible and then practicing what you learn are key to bringing structural competency to an organization and having a successful implementation.

Both teams are also very aware that the term structural competency itself may be confusing. One participant summarized, "just those two words, doesn't give a lot of context for what it means. So I think again, that repetitive awareness and discussion about it has been helpful." The following comments further highlight how teams were aware of the potential for confusion and made necessary adaptations:

> So we don't always use the term structural competency because I think that term doesn't make any sense to people if you're not familiar with, you know, with what it entails. And so I think, you know, sometimes we talk about health inequities, we talk about health justice. We talk about, you know, health disparities, differences in health outcomes, and why those exist. So like a lot of times we'll talk, I use the structural competency idea of working backwards to explain to people or to get people to see the complexity, but I don't necessarily say like, and so, you know, work on addressing these multiple levels is structural competency.

> We've changed the title to structural determinants of health and wellbeing, as the Secretary suggested a change from "competency" would be more accessible at HSD... We've sort of taken the approach to let the material sink in and not focus too much on ensuring we all talk about structures in the same way, though as I am thinking about this that is one of the competencies we are trying to build. It does seem that through the conversations, people are starting to shift their language to more structural and that is the goal. How important is it that we are all talking about the framework in the exact same way? I'm not sure.

It is evident that both teams understand the importance of building the competency of shared language for the framework and also aware of the potential for the name structural competency itself to be off putting. Both teams display continued reflection on how to refer to

the framework, how to describe the work of the framework, and how to help people build a shared vocabulary while getting the important work done.

Language use also applies to how both teams talk about the framework and bring in the levels of intervention. As one participant said, “make a difference in your own life and how you think about things and then make a difference in your agency and how you treat customers.” Additionally, another participant said:

> I'm really glad we did what we did early on focusing on just doing the language first. So I think I’d advise someone to not jump in and try and change policy and all of that, because you really have to build a case really why we're talking about what we're talking about to begin with.

Using the levels of intervention to help make structural competency actionable and address things that feel within one’s locus of control first have been important to both teams.

Differences

There are several differences between the two projects, the biggest of which is that DAWI is farther along in its process than HSD. The projects also describe their planning for implementation and why the intervention is important slightly differently. Finally, the two organizations are different in their type and structure, which plays a role in how the implementation has progressed.

DAWI is farther along in the process than HSD. At DAWI, one member of the team recalled learning about the framework from an article, “the article was written in like 2014. I think I ended up reading it a couple years after it was published.” The HSD team did not learn about the framework until the training DAWI organized in Las Cruces in “September, I think, of 2019”. It was not long after the DAWI team member learned about the framework that it was

accepted and moving forward in the organization. For HSD on the other hand, it took from September 2019 to April 2021 for the project to be approved and move forward. HSD has only recently finished the first pilot training with leadership and a few communications posts; they will next do a staff training, hope to continue the communications work, and begin to explore tools to help them leverage structural competency in programs and policy efforts. DAWI, on the other hand, leverages structural competency in their strategic planning to help prioritize their work and address equity concerns, has completed many trainings, is in the process of developing an online course, and is working with others to spread the knowledge. Given the difference in timing of learning about the framework and of gaining approval to move forward, it makes sense that they are at different stages in the process.

The two organizations also describe their planning to use structural competency slightly differently. DAWI on several occasions described the framework as somewhat of an unintentional project. The HSD team described their process as very intentional and grounded in the strategic plan as necessary in order to move it forward. Both organizations acknowledged that they'd like the framework to be more integrated with their strategic plans, however alignment with the strategic plan did not come up for DAWI at the very beginning as it did for HSD. Also, in the HSD implementation story, a tension for change at the organization and specific desire to build more empathy and shift the way staff think about HSD customers was very apparent. There were no comments related to tension for change or a need to build more empathy at DAWI.

Finally, both organizations are very different in type and structure. DAWI is a local organization that serves one county; as one participant said, " the mission of the Wellness

Institute is for Doña Ana county to be the healthiest county in the country." Another individual described the team as "that group is a little bit self-selecting" and the organization's function as:

> The Wellness Institute can do whatever it wants. I mean, there are some things that we need to do as a health council, but really we can, you know, we can organize it how we want to, um, I think makes, made a big difference in terms of people's confidence and being able to actually implement it.

The Wellness Institute has individuals who self-selected as part of the organization and are fully behind the mission. The organization also has a lot of flexibility in choosing what to focus on and how to complete the work. This, in turn, helps to build confidence and passion. HSD, on the other hand, is a governmental organization that serves the entire state. HSD has close to 1,700 employees and there are "1,050,507,175 customers at HSD," as one participant said. The organization is also generally more rigid in what their organization does than DAWI. Two individuals described, "HSD provides benefits like SNAP, Medicaid, and other programs that support individuals experiencing poverty" and "we have so many programs and they're often governed by different state regs." This sets a different precedent for the organization and its work as compared to the openness described by DAWI's team. Another key point raised by an HSD team member in working in state government is the "importance of knowing your audience and massaging the framework to be digestible to an audience that may be on all sides of the political spectrum." This is not necessarily a challenge that would be present for DAWI.

Conclusions, Implications, Recommendations

While structural competency has been shown to be influential for medical education, government agencies worldwide have not implemented the structural competency framework and training. Thus, there is a clear need to illustrate whether and how it can be effective in this setting. This study sought to develop case studies of structural competency framework implementation and training in two public health/social service/governmental organizations in New Mexico, the New Mexico Human Services Department (HSD) and Doña Ana Wellness Institute (DAWI), in order to provide a model for other similar organizations to follow. This study employed a multiple-case design with two holistic cases each representing a single unit of analysis, guided by the Consolidated Framework for Implementation Research (CFIR) (CFIR Research Team-Center for Clinical Management Research, 2022) in development, data collection, and analysis.

This study is unique in that there is no previous literature mapping structural competency implementation to the CFIR framework. Similarly, there are no known case studies of the implementation of structural competency frameworks in public health/social service organizational settings. From undertaking this unique study, we were able to identify several key themes that may inform future structural competency implementation in these types of settings.

Discussion of Key Results

Key themes uncovered in this study include that CFIR applies to both HSD and DAWI structural competency implementation processes, with similarities and differences between

the two organizations and implementation efforts. There are several lessons learned from both projects, which are summarized in Table 4 and described in more detail below.

This study builds on the current body of knowledge in a few specific areas. Both case studies describe a structurally informed perspective as important in enabling those using the framework to better do their job and to better engage with the communities they serve as well as the importance of engaging community members in structural competency work. Both cases build on the literature's description of leveraging the socioecological model and levels of intervention and emphasize the value of starting small and accessible. Finally and most specifically, the PRIME-LC project is very much aligned with HSD's work. This project is guided by the principle "know thyself" and the project overall describes structural competency as understanding that personal experiences and privileges gained over time are not necessarily built on your own but rather a product of structures (Montoya, 2019). This self-reflection as a key principle in developing a more structurally informed lens is similar to how HSD has organized their project, starting with a training that helps people better understand themselves.

Lessons Learned from Both Implementations

There are several lessons learned from both projects that may help another governmental or social service organization to implement structural competency. Lessons are with respect to developing and planning the implementation, considering levels of intervention and how to focus the work, and the use of language related to the intervention.

Table 4 summarizes the lessons learned and specifies from which organization the concept originated and they are described in more detail below.

Table 4: Lessons Learned from HSD and DAWI Implementation Experiences

Topic	Lesson
Planning and Developing Implementation	<u>Both:</u> 1) Take it slow and be prepared for an iterative implementation process. 2) Find the right people who are passionate about the work. Consider role and agency in the organization when making the initial pitch. 3) Leadership engagement and direction from the top is important. 4) Ensure a diversity of perspectives are included. 5) Leverage Structural Competency Workgroup, global network of people using the framework, and existing materials. Don't reinvent the wheel. 6) Involve community members/customers where possible. Use real-life examples that the target audience can relate to. 7) Know your audience. 8) Leverage current events to build the case for structural competency, both within organization and in the world. 9) Leverage alignment with mission and strategic plan, and connection individuals involved feel to the framework. <u>HSD:</u> 10) Secure dedicated resources.
Levels of Intervention	<u>Both:</u> 1) Use them to engage people! 2) Don't jump into the most difficult way of using structural competency (policy), it is ok to start with the individual level. <u>DAWI:</u> 3) Keep the focus both macro and micro. Remind that all levels exist, even if someone is inclined to focus on a specific one.
Language Use	<u>Both:</u> 1) Adapt the language to meet your needs. Be deliberate in the words you choose. 2) Encourage people to practice using the language.

Both organizations recognize the importance of taking it slow and not trying to do too much from the beginning. In addition to being prepared to take it slowly, finding the right

people came up for both organizations. Recurring themes for both teams include finding the right team members and that the role and level of agency of the individual making the initial pitch was important; both organizations leveraged higher-level individuals with more experience at the organization. Similarly, comments regarding the responsibility of leaders to continue to support structural competency work were unanimous across the two cases; comments elucidated that the intervention needs transparent and direct support from the top in an ongoing way. Also, both teams mentioned the importance of involving the community or customers in the implementation work. The theme of bringing in the voice of the community or customers and of telling personal stories and real-life examples came up several times for both groups.

Both organizations also referenced the importance of having a diverse group of people involved in their implementation efforts. The data shows that inclusion of a diversity of perspectives and experience is valuable. Individuals who are not immediately on board with the intervention may also be an asset to the team. Finally, the HSD team explained several times that they wish they could "get at least one person that could do it really full time. That's like my one regret." The constant struggle for resources for this project has hindered HSD's implementation efforts and therefore the recommendation is to secure dedicated resources.

Additional advice from HSD with respect to the implementation climate includes knowing your audience and leveraging current events or climate to build the case for structural competency. The data highlights the importance of making the framework and messaging digestible to individuals involved, and specific to HSD, of speaking to people across

the political spectrum. This is particularly important for future government institutions that may wish to implement structural competency.

Both organizations mentioned the value of the Structural Competency Workgroup, of other folks around the globe who are using the model, and of using existing materials to support the work rather than reinventing the wheel. Data suggest that the Structural Competency Workgroup is valuable as the original source of the intervention and that there is a network of people using the framework that help each other and share resources. The community aspect of this implementation climate is an important one to lean on and continue to foster.

The HSD and DAWI teams reflected on using the levels of intervention to help ground people in the possible areas of action for structural competency. Making the case for structural competency by focusing on the language and reflecting on personal experiences and interactions has served them well. One caveat to this as explained by DAWI is that people may get stuck at one level and not move forward. The lesson here is that it is both important to make the framework feel approachable and not overwhelming, but also to remind people that there is a bigger picture. The ultimate goal of structural competency work is much more than stopping at an intrapersonal or interpersonal level; it involves focusing on structural issues at the community, institutional, policy, and research levels as well.

Another recurring theme is the importance of language use and considering what will be approachable for the target audience. Both teams stated the importance of adapting the language and framework to make it fit for the organization, as well as starting with what feels approachable and aiming to not overwhelm individuals. Both teams are cautious about using

the name structural competency. In thinking about the levels of intervention, the DAWI team reflected on the practicality of adjusting the language and combining levels to make them more appropriate. The levels of intervention are just one example of how both teams referenced adapting the language and being intentional about word choice when describing the work. Reminding future training participants of the value of practicing the language as they're learning it is recommended.

In sum, both the HSD and DAWI experiences implementing structural competency provide lessons learned and advice for future organizations similarly hoping to implement the framework outside of its traditional use in medical education/clinic settings. These lessons are particularly useful for similar organizations that serve a social service, government, and/or public health purpose for the communities they benefit. Table 4 summarizes the key lessons, which relate to planning and developing the implementation, explaining the possible levels of intervention and where to focus attention, and finally in language use when talking about and teaching the framework.

Strengths and Limitations

There are several methodological strengths of this study. First, the researcher followed case-study guidelines of employing a multiple-case design with two holistic cases each representing a single unit of analysis (Yin, 2009). The researcher used a well-established theory, Consolidated Framework for Implementation Research (CFIR Research Team-Center for Clinical Management Research, 2022), to guide the study. Multiple methodological strategies also strengthened the study including triangulation of data within cases and cross-

case comparison, construct validity with multiple sources of evidence used to establish a chain of evidence and clearly defined operational measures, as well as prolonged engagement of the researcher with each organization.

Limitations of the design include that this is a thesis project with limited resources, including only a single researcher, and thus verification of coding and analysis only occurred by the researcher themself. The Thesis Committee Chair reviewed the draft codebook and answered questions about analysis; this involvement is standard for a thesis project however an ideal research design would include multiple researchers. Because the researcher has been deeply involved in the HSD project and peripherally in the DAWI project, confirmation bias and other forms of bias are possible. Some bias has been mitigated in the inherent reflexivity associated with the process of autoethnographic journaling as a data collection method.

Implications

Results presented in this study seek to support the future use of structural competency by public health, social service, and other governmental organizations. Each project's experiences are documented in both narrative format and a process map, with similarities and differences between the projects and the organizations explained, and perhaps most importantly, lessons learned and key takeaways outlined to bolster other organizations' ability to follow HSD and DAWI's lead. The implications of using the study results for structural competency implementation projects are for the field of public health generally and public health practice specifically. Because this is a qualitative study without generalizability, there are no applicable consequences to public health theory. Both DAWI and HSD will continue

their work implementing structural competency at their organizations and should consider leveraging the results of this study to learn from each other's experiences.

Recommendations

It is recommended that other organizations use the learnings from this study to inform their own work with structural competency. They should also document their processes, experiences, and learnings to continue building on the data gathered and presented here. Continuing to build the knowledge base for use of structural competency outside of its traditional context in clinical settings/medical education and specifically in the fields of social services, public health, and government is important. It is also valuable to continue to apply CFIR to describe structural competency implementation both within its traditional use context and outside; it is therefore recommended that future studies consider following this study's methodology and map structural competency implementation to CFIR. Both of these areas of study, mapping structural competency implementation to CFIR and documenting use of structural competency outside of its traditional use context, are valuable for the many fields including public health, social services, healthcare, policy, equity, and beyond.

Conclusion

This primarily deductive, qualitative study collected and analyzed data from six key informant interviews and one autoethnographic journal to create case studies for the implementation of structural competency in a new setting. It created a preliminary foray into the implementation of structural competency in non-medical settings, specifically social

service, public health, and governmental organizations and is the first to use CFIR as a guide for explaining structural competency implementation. Next steps should include understanding what happens next for both organizations and structural competency, additional study on use of the framework outside of its traditional context and continued use of CFIR to explain structural competency implementation.

References

Awotona, T. (2013). *Calendly*. https://calendly.com

Bazeley, P. (2013). *Qualitative data analysis: Practical strategies*. SAGE.

Beauchamp, D. E. (1976). Public health as social justice. *Inquiry: A Journal of Medical Care Organization, Provision and Financing*, *13*(1), 3–14.

Beck, A. F., Curran, M., Henize, A. W., Klein, M. D., Parrish, D. S., Paul, E. G., & Tobin-Tyler, E. (2019). Is Poverty Making Me Sick? An Example of the Impact of Medical-Legal Partnership on Keeping Children Healthy. *Structural Competency in Mental Health and Medicine*. https://doi.org/10.1007/978-3-030-10525-9_10

Berkeley Rad Med Critical Social Medicine Collective Structural Competency Working Group. (2016). *Structural Competency Handouts* [Handouts]. https://www.feinberg.northwestern.edu/sites/cpci/docs/Structural-Competency-Handouts-Berkeley-Rad-Med-Critical-Social-Medicine..pdf

Black Lives Matter | Home. (n.d.). Black Lives Matter. Retrieved June 8, 2022, from https://blacklivesmatter.com/

Bonds, A., & Inwood, J. (2016). Beyond white privilege: Geographies of white supremacy and settler colonialism. *Progress in Human Geography*, *40*(6), 715–733. https://doi.org/10.1177/0309132515613166

Bourgois, P. (2012). Theorizing Violence in the Americas: A Thirty-Year Ethnographic Retrospective. *Homme (France)*, 139–168.

Bourgois, P., Holmes, S. M., Sue, K., & Quesada, J. (2017). Structural Vulnerability: Operationalizing the Concept to Address Health Disparities in Clinical Care. *Academic Medicine: Journal of the Association of American Medical Colleges*, *92*(3), 299–307. https://doi.org/10.1097/ACM.0000000000001294

Braslow, J., & Bourgois, P. (2019). *Teaching Social Medicine as Collaborative Ethnographic Research and Advocacy on Homelessness and Serious Mental Illness* (pp. 75–85). https://doi.org/10.1007/978-3-030-10525-9_6

Brown, W. (2006). American Nightmare: Neoliberalism, Neoconservatism, and De-Democratization. *Political Theory*, *34*(6), 690–714.

CFIR Research Team-Center for Clinical Management Research. (2022). *Constructs – The Consolidated Framework for Implementation Research*. https://cfirguide.org/constructs/

Coots, J., Belkin, G., & Drucker, E. (2019). From Punishment to Public Health: Interdisciplinary Dialogues and Cross-Sector Policy Innovations. In H. Hansen & J. M. Metzl (Eds.), *Structural Competency in Mental Health and Medicine: A Case-Based Approach to Treating the Social Determinants of Health* (pp. 181–189). Springer International Publishing. https://doi.org/10.1007/978-3-030-10525-9_15

Crenshaw, K. (1989). *Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics*. 31.

Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science: IS*, *4*, 50. https://doi.org/10.1186/1748-5908-4-50

Denby, R. W., & Bowmer, A. (2013). Culture and Identity in Generic Social Work. *Encyclopedia of Social Work*. https://doi.org/10.1093/acrefore/9780199975839.013.890

Downey, M. M., & Gómez, A. M. (2018). Structural Competency and Reproductive Health. *AMA Journal of Ethics*, *20*(3), 211–223. https://doi.org/10.1001/journalofethics.2018.20.3.peer1-1803

Downey, M., Neff, J., & Dube, K. (2019). Don't "Just Call the Social Worker": Training in Structural Competency to Enhance Collaboration between Healthcare Social Work and Medicine. *The Journal of Sociology & Social Welfare*, *46*(4). https://scholarworks.wmich.edu/jssw/vol46/iss4/6

Edelsack, P. S., Khan, T., & Geiger, J. (2019). Teaching Population Health and Community Health Assessment to Undergraduate Medical Students. In H. Hansen & J. M. Metzl (Eds.), *Structural Competency in Mental Health and Medicine: A Case-Based Approach to Treating the Social Determinants of Health* (pp. 87–97). Springer International Publishing. https://doi.org/10.1007/978-3-030-10525-9_7

Fanon, F. (1959). *A Dying Colonialism*.

Farmer, P. E., Nizeye, B., Stulac, S., & Keshavjee, S. (2006). Structural Violence and Clinical Medicine. *PLOS Medicine*, *3*(10), e449. https://doi.org/10.1371/journal.pmed.0030449

Fisher, M., & Baum, F. (2014). Why behavioral health promotion endures despite its failure to reduce health inequities. *Sociology of Health and Illness*, *36*(2), 213–255.

Glass, T. A., & McAtee, M. J. (2006). Behavioral science at the crossroads in public health: Extending horizons, envisioning the future. *Social Science & Medicine (1982)*, *62*(7), 1650–1671. https://doi.org/10.1016/j.socscimed.2005.08.044

Google. (n.d.). *Google Forms*. Retrieved April 25, 2022, from https://docs.google.com/forms/u/0/

Greene, J. A., Mooney, G., & Sufrin, C. (2019). The Walking Classroom and the Community Clinic: Teaching Social Medicine Beyond the Medical School. In H. Hansen & J. M. Metzl (Eds.), *Structural Competency in Mental Health and Medicine: A Case-Based Approach to Treating the Social Determinants of Health* (pp. 15–25). Springer International Publishing. https://doi.org/10.1007/978-3-030-10525-9_2

Gregg, J., & Saha, S. (2006). Losing culture on the way to competence: The use and misuse of culture in medical education. *Academic Medicine: Journal of the Association of American Medical Colleges*, *81*(6), 542–547. https://doi.org/10.1097/01.ACM.0000225218.15207.30

Hunt, L. M., Schneider, S., & Comer, B. (2004). Should "acculturation" be a variable in health research? A critical review of research on US Hispanics. *Social Science & Medicine*, *59*(5), 973–986. https://doi.org/10.1016/j.socscimed.2003.12.009

Jenks, A. C. (2011). From "lists of traits" to "open-mindedness": Emerging issues in cultural competence education. *Culture, Medicine and Psychiatry*, *35*(2), 209–235. https://doi.org/10.1007/s11013-011-9212-4

Jones, A. (2019). Agents of Change: How Allied Healthcare Workers Transform Inequalities in the Healthcare Industry. In H. Hansen & J. M. Metzl (Eds.), *Structural Competency in Mental Health and Medicine: A Case-Based Approach to Treating the Social Determinants of Health* (pp. 191–209). Springer International Publishing. https://doi.org/10.1007/978-3-030-10525-9_16

Kaufman, M. R., Rodriguez, L., Fullilove, R. E., & Fullilove, M. T. (2019). Urbanism Is a Participatory Sport: Reflections on Teaching About Cities in a School of Public Health. In H. Hansen & J. M. Metzl (Eds.), *Structural Competency in Mental Health and Medicine: A Case-Based Approach to Treating the Social Determinants of Health* (pp. 101–108). Springer International Publishing. https://doi.org/10.1007/978-3-030-10525-9_8

Klein, K. J., & Sorra, J. S. (1996). The Challenge of Innovation Implementation. *The Academy of Management Review*, *21*(4), 1055–1080. https://doi.org/10.2307/259164

Kleinman, A., & Benson, P. (2006). Anthropology in the Clinic: The Problem of Cultural Competency and How to Fix It. *PLoS Medicine*, *3*(10), 1673–1676.

Mero-Jaffe, I. (2011). 'Is that what I Said?' Interview Transcript Approval by Participants: An Aspect of Ethics in Qualitative Research. *International Journal of Qualitative Methods*, *10*(3), 231–247. https://doi.org/10.1177/160940691101000304

Metzl, J. M., & Hansen, H. (2014). Structural competency: Theorizing a new medical engagement with stigma and inequality. *Social Science & Medicine (1982)*, *103*, 126–133. https://doi.org/10.1016/j.socscimed.2013.06.032

Metzl, J. M., & Petty, J. (2017). Integrating and Assessing Structural Competency in an Innovative Prehealth Curriculum at Vanderbilt University. *Academic Medicine*, *92*(3), 354–359. https://doi.org/10.1097/ACM.0000000000001477

Metzl, J. M., Petty, J., & Pettis, P. J. (2019). Teaching and Testing Structural Competency in Pre-health Undergraduate Classrooms. In H. Hansen & J. M. Metzl (Eds.), *Structural Competency in Mental Health and Medicine: A Case-Based Approach to Treating the Social Determinants of Health* (pp. 3–14). Springer International Publishing. https://doi.org/10.1007/978-3-030-10525-9_1

Metzl, J. M., & Roberts, D. E. (2014). Structural competency meets structural racism: Race, politics, and the structure of medical knowledge. *The Virtual Mentor: VM*, *16*(9), 674–690. https://doi.org/10.1001/virtualmentor.2014.16.09.spec1-1409

Microsoft. (2022). *Microsoft Excel* (Windows 10) [Computer software].

Montoya, M. J. (2019). Relational Politics of Clinical Care: Lessons from the University of California PRIME-LC Program. In H. Hansen & J. M. Metzl (Eds.), *Structural Competency in Mental Health and Medicine: A Case-Based Approach to Treating the Social Determinants of Health* (pp. 149–158). Springer International Publishing. https://doi.org/10.1007/978-3-030-10525-9_12

Nardone, A., Rudolph, K. E., Morello-Frosch, R., & Casey, J. A. (2021). Redlines and Greenspace: The Relationship between Historical Redlining and 2010 Greenspace across the United States. *Environmental Health Perspectives*, *129*(1), 017006. https://doi.org/10.1289/EHP7495

National Institutes of Health | National Cancer Institute Division of Cancer Control & Population Sciences. (2015). *Qualitative Methods in Impementation Science* (p. 31). https://cancercontrol.cancer.gov/sites/default/files/2020-09/nci-dccps-implementationscience-whitepaper.pdf

Neff, J., Holmes, S. M., Knight, K. R., Strong, S., Thompson, -Lastad Ariana, McGuinness, C., Duncan, L., Saxena, N., Harvey, M. J., Langford, A., Carey, -Simms Katiana L., Minahan, S. N., Satterwhite, S., Ruppel, C., Lee, S., Walkover, L., De, A. J., Lewis, B., Matthews, J., & Nelson, N. (2020). Structural Competency: Curriculum for Medical Students, Residents, and Interprofessional Teams on the Structural Factors That Produce Health Disparities. *MedEdPORTAL*, *16*, 10888. https://doi.org/10.15766/mep_2374-8265.10888

Neff, J., Holmes, S. M., Strong, S., Chin, G., De Avila, J., Dubal, S., Duncan, L. G., Halpern, J., Harvey, M., Knight, K. R., Lemay, E., Lewis, B., Matthews, J., Nelson, N., Satterwhite, S., Thompson-Lastad, A., & Walkover, L. (2019). The Structural Competency Working Group: Lessons from Iterative, Interdisciplinary Development of a Structural Competency Training Module. In H. Hansen & J. M. Metzl (Eds.), *Structural Competency in Mental Health and Medicine* (pp. 53–74). Springer International Publishing. https://doi.org/10.1007/978-3-030-10525-9_5

Neff, J., Knight, K. R., Satterwhite, S., Nelson, N., Matthews, J., & Holmes, S. M. (2017). Teaching Structure: A Qualitative Evaluation of a Structural Competency Training for Resident Physicians. *Journal of General Internal Medicine*, *32*(4), 430–433. https://doi.org/10.1007/s11606-016-3924-7

Netherland, J. (2019). Physicians as Policy Advocates: From the Clinic to the State House. In H. Hansen & J. M. Metzl (Eds.), *Structural Competency in Mental Health and Medicine: A Case-Based Approach to Treating the Social Determinants of Health* (pp. 211–216). Springer International Publishing. https://doi.org/10.1007/978-3-030-10525-9_17

Phelan, J. C., Link, B. G., & Tehranifar, P. (2010). Social conditions as fundamental causes of health inequalities: Theory, evidence, and policy implications. *Journal of Health and Social Behavior*, *51 Suppl*, S28-40. https://doi.org/10.1177/0022146510383498

Rabin, B. A., Brownson, R. C., Haire-Joshu, D., Kreuter, M. W., & Weaver, N. L. (2008). A glossary for dissemination and implementation research in health. *Journal of Public Health Management and Practice: JPHMP*, *14*(2), 117–123. https://doi.org/10.1097/01.PHH.0000311888.06252.bb

Richard, L., Gauvin, L., & Raine, K. (2011). Ecological models revisited: Their uses and evolution in health promotion over two decades. *Annual Review of Public Health*, *32*, 307–326. https://doi.org/10.1146/annurev-publhealth-031210-101141

Rohrbaugh, R. M., Bromage, B., Encandela, J. A., Spell, V. T., Williamson, B., & Mathis, W. S. (2019). Allying with Our Neighbors to Teach Structural Competence: The Yale Department of Psychiatry Structural Competency Community Initiative (YSCCI). In H. Hansen & J. M. Metzl (Eds.), *Structural Competency in Mental Health and Medicine: A Case-Based Approach to Treating the Social Determinants of Health* (pp. 159–166). Springer International Publishing. https://doi.org/10.1007/978-3-030-10525-9_13

Salhi, B. A., Tsai, J. W., Druck, J., Ward-Gaines, J., White, M. H., & Lopez, B. L. (2020). Toward Structural Competency in Emergency Medical Education. *AEM Education and Training*, *4*(Suppl 1), S88–S97. https://doi.org/10.1002/aet2.10416

Saul, J. (2019). *Promoting Collective Recovery in an Immigrant/Refugee Community Following*

Massive Trauma (pp. 109–119). https://doi.org/10.1007/978-3-030-10525-9_9

Structural Competency Working Group. (n.d.). *Structural Competency Working Group*. Retrieved December 5, 2021, from https://www.structcomp.org

Suhail-Sindhu, S., Patel, P., Sugarman, J., & Hansen, H. (2019). Program for Residency Education, Community Engagement, and Peer Support Training (PRECEPT): Connecting Psychiatrists to Community Resources in Harlem, NYC. In H. Hansen & J. M. Metzl (Eds.), *Structural Competency in Mental Health and Medicine: A Case-Based Approach to Treating the Social Determinants of Health* (pp. 137–148). Springer International Publishing. https://doi.org/10.1007/978-3-030-10525-9_11

Tervalon, M., & Murray-García, J. (1998). Cultural humility versus cultural competence: A critical distinction in defining physician training outcomes in multicultural education. *Journal of Health Care for the Poor and Underserved*, *9*(2), 117–125. https://doi.org/10.1353/hpu.2010.0233

Trinh-Shevrin, C., Taher, M., & Islam, N. (2019). Community Health Workers as Accelerators of Community Engagement and Structural Competency in Health. In H. Hansen & J. M. Metzl (Eds.), *Structural Competency in Mental Health and Medicine: A Case-Based Approach to Treating the Social Determinants of Health* (pp. 167–177). Springer International Publishing. https://doi.org/10.1007/978-3-030-10525-9_14

VERBI Software. (2021). *MAXQDA 2022*. VERBI Software. Maxqda.com

Yin, R. K. (2009). *Case study research: Design and methods* (4th ed). Sage Publications.

Yuan, E. (2022). *Video Conferencing, Cloud Phone, Webinars, Chat, Virtual Events | Zoom* (5.10.2) [Computer software]. Zoom Video Communications. https://zoom.us/

Zanti, S., & Thomas, M. L. (2021). Evidence-Based Policymaking: What Human Service Agencies Can Learn from Implementation Science and Integrated Data Systems. *Global Implementation Research and Applications*, 1–11. https://doi.org/10.1007/s43477-021-00028-x

Appendix

I. Interview Guide

Welcome: Hello ____, thank you so much for taking the time to meet with me today.

- Do you consent to me recording this interview so I can transcribe it later? Great, thanks. [start record]
- Now that we are recording, may I ask again if you consent to participate in this interview? Thank you.
    - proposed consent principles: https://bit.ly/participantconsent
- This study has been deemed as exempt from IRB review by Emory IRB.
- A bit about the topic before we start: I am interested to learn about your organization's implementation of the structural competency framework with the goal to create case studies. I'm exploring the DAWI and NMHSD uses of structural competency and hope to gather lessons learned to enable others in social services/govt/public health to implement the framework.
- I'll be taking notes as we talk so excuse any pauses, I may just be typing. Also as I said I'll be recording this conversation so I can transcribe it after we talk. Everything I publish will be de-identified with names changed to protect your identity, but I may quote you directly.
- Please let me know if you'd like a copy of that transcription, and I'd be happy to send it to you. Ok, let's begin.

First, I want to hear more about your personal experience with the structural competency framework.

1. How did you learn about it?
    a. Follow up: What was initially challenging about the framework?

2. Please explain how and why you became involved in the structural competency work at your organization.
    a. Follow-ups:
        i. How confident do you feel in your ability to implement the framework?
        ii. How confident do you feel in the organization's ability/readiness to implement?

3. What about implementing structural competency is important to your organization?
    a. Follow-up: To the communities you serve?

4. What about structural competency aligns with the work you or your organization were already doing?
    a. Probe: What about the framework made sense to you?

5. What is your understanding of why your organization chose to move forward working with this framework?
    a. Follow-ups:
        i. Why was structural competency chosen over other frameworks?
        ii. What kind of external influences pushed you to implement the framework? (policies, performance measures, financial incentives, other)

Let's focus now on your organization's process with implementation

6. Tell me about your team working on structural competency and their various roles. How did you decide who should be on the team?
    a. Follow-ups:
        i. What are/were the important roles in the implementation project?
        ii. Who are/were key influencers to get involved?
        iii. Are there resources outside of the organization that have helped?

7. Tell me about your process for gaining key stakeholder support for this project.
    a. Probes: Leadership, the individuals who are doing the implementing, others affected by the work

8. How are you communicating about the concept of structural competency?
    a. Probe: What do you feel are the most important points to communicate when communicating about the framework?
    b. Follow-up:
        i. What kinds of materials are you using? Did you create them or did they already exist?
        ii. How did you adapt the concepts and/or language used in the framework to fit your context?
        iii. How have you made sure everyone is on the same page about the framework before moving forward?

9. Describe your organization's approach to implementing structural competency at HSD/DAWI.
    a. Follow-ups:
        i. Why did you do it the way you did?
        ii. What would you do differently next time?
        iii. What have been your greatest challenges?
        iv. Where are you in the process?
        v. Do you think it will be effective in your setting?

10. Explain your organization's desired impact from bringing in structural competency.
    a. Follow up:

i. Are you on the right track?
ii. Have there been any unintended consequences, either positive or negative, from this project?

11. Imagine that another public health or social service organization has approached you to learn from your experience implementing structural competency. They are interested in bringing the model to their work. What are the 3 most important things you would tell them?

12. What is next for your organization with structural competency?
    a. Follow-up: How do you plan to make implementation sustainable?

II. **Pre-Survey**

1. Gender Identity
2. Race/Ethnicity
3. Age
4. Please select the level that best describes your role at HSD/DAWI:
    a. Executive/senior leadership level
    b. Director level
    c. Intermediate (management)
    d. Intermediate (no management)
    e. Entry-level
5. How long have you worked there?
    a. <1 year
    b. 1-3 years
    c. 4-10 years
    d. >10 years
6. Please describe your top 3-5 responsibilities.
7. Briefly describe the projects you are involved in.
8. Which of the following best describes your involvement in your organization's implementation of the structural competency framework? Check all that apply.
    a. Opinion Leader (Individuals in an organization who have formal or informal influence on the attitudes and beliefs of their colleagues with respect to implementing the intervention.)
    b. Implementation Leader (Individuals from within the organization who have been formally appointed with responsibility for implementing an intervention as coordinator, project manager, team leader, or other similar role.)
    c. Champion (Individuals who dedicate themselves to supporting, marketing, and 'driving through' an implementation, overcoming indifference or resistance that the intervention may provoke in an organization.)
    d. Other: (please explain)
9. From your perspective, who are the key stakeholders for your organization's implementation of structural competency?
    a. Name, Organization, Title

III. Initial Codebook

Intervention Characteristics	
A. Relative Advantage	Definition: Stakeholder perception of the advantage of implementing the innovation versus an alternative solution. Inclusion Criteria: Include statements that demonstrate the innovation is better (or worse) than existing programs. Exclusion Criteria:
B. Adaptability	Definition: The degree to which an innovation can be adapted, tailored, refined, or reinvented to meet local needs. Inclusion Criteria: Include statements regarding the ability to adapt the innovation to their context, e.g., complaints about the rigidity of the protocol. Include statements that the innovation needed to be adapted. Exclusion Criteria: Exclude or statements that the innovation did not need to be adapted.
C. Trialability	Definition: The ability to test the innovation on a small scale in the organization, and to be able to reverse course (undo implementation) if warranted. Inclusion Criteria: Include statements related to whether the site piloted the innovation in the past or has plans to in the future, and comments about whether they believe it is (im)possible to conduct a pilot. Exclusion Criteria: Exclude descriptions of use of results from local or regional pilots.
Outer Setting	
A. Needs & Resources of Those Served by the Organization	Definition: The extent to which the needs of those served by the organization (e.g., patients), as well as barriers and facilitators to meet those needs, are accurately known and prioritized by the organization. Inclusion Criteria: Include statements demonstrating (lack of) awareness of the needs and resources of those served by the organization. Analysts may be able to infer the level of awareness based on statements about: 1. Perceived need for the innovation based on the needs of those served by the organization and if the innovation will meet those needs; 2. Barriers and facilitators of those served by the organization to participating in the innovation; 3. Participant feedback on the innovation, i.e., satisfaction and success in a program. In addition, include statements that capture whether or not awareness of the needs and resources of those served by the organization influenced the implementation or adaptation of the innovation. Include statements that demonstrate a strong need for the innovation. Exclusion Criteria: Exclude statements related to engagement strategies and outcomes, e.g., how innovation participants

	became engaged with the innovation, and code to Engaging: Innovation Participants.
Ai. Empathy	Definition: Empathy as a factor in the innovation helping to meet the needs and resources of those served by the organization. Inclusion Criteria: Include statements specifically using the word empathy or related words like compassion, understanding, etc. Exclusion Criteria: Exclude statements not specifically related to empathy-building as a reason for using the innovation.
Aii. Lens	Definition: The innovation provides a new lens through which to view the world generally or work specifically. The innovation is helpful in shifting the lens of staff towards the people they serve. Inclusion Criteria: Include statements that mention the word lens or other general comments about shifting worldview. Exclusion Criteria: Do not include statements that don't reference a shift in lens or worldview.
B. Cosmopolitanism	Definition: The degree to which an organization is networked with other external organizations. Inclusion Criteria: Include descriptions of outside group memberships and networking done outside the organization. Exclusion Criteria: Exclude statements about general networking, communication, and relationships in the organization, such as descriptions of meetings, email groups, or other methods of keeping people connected and informed, and statements related to team formation, quality, and functioning.
Inner Setting	
A. Culture	Definition: Norms, values, and basic assumptions of a given organization. Inclusion Criteria: Include statements regarding the norms, values, and assumptions of the organization in relation to implementation of the innovation. Exclusion Criteria: Exclude statements not relating culture to implementation.
B. Implementation Climate	Definition: The absorptive capacity for change, shared receptivity of involved individuals to an innovation, and the extent to which use of that innovation will be rewarded, supported, and expected within their organization.

	Inclusion Criteria: Include statements regarding the general level of receptivity to implementing the innovation. Exclusion Criteria: Exclude statements regarding the general level of receptivity that are captured in the sub-codes.
Bi. Tension for Change	Definition: The degree to which stakeholders perceive the current situation as intolerable or needing change. Inclusion Criteria: Include statements that demonstrate a strong need for the innovation and/or that the current situation is untenable, e.g., statements that the innovation is absolutely necessary or that the innovation is redundant with other programs. Exclusion Criteria: Exclude statements regarding specific needs of individuals that demonstrate a need for the innovation, but do not necessarily represent a strong need or an untenable status quo, and code to Needs and Resources of Those Served by the Organization. Exclude statements that demonstrate the innovation is better (or worse) than existing programs and code to Relative Advantage. Exclude statements that describe the lack of tension for change.
Bii. Compatibility	Definition: The degree of tangible fit between meaning and values attached to the innovation by involved individuals, how those align with individuals' own norms, values, and perceived risks and needs, and how the innovation fits with existing workflows and systems. Inclusion Criteria: Include statements that demonstrate the level of compatibility the innovation has with organizational values and work processes. Include statements that the innovation did or did not need to be adapted as evidence of compatibility or lack of compatibility. Exclusion Criteria:
Biii. Relative Priority	Definition: Individuals' shared perception of the importance of the implementation within the organization. Inclusion Criteria: Include statements that reflect the relative priority of the innovation, e.g., statements related to change fatigue in the organization due to implementation of many other programs. Exclusion Criteria:
Biv. Readiness for Implementation	Definition: Tangible and immediate indicators of organizational commitment to its decision to implement an innovation. Inclusion Criteria: Include statements regarding the general level of readiness for implementation.

	Exclusion Criteria: Exclude statements regarding the general level of readiness for implementation that are captured in the sub-codes.
Bv. Leadership Engagement	Definition: Commitment, involvement, and accountability of leaders and managers with the implementation of the innovation. Inclusion Criteria: Include statements regarding the level of engagement of organizational leadership. Exclusion Criteria:
Bvi. Available Resources	Definition: The level of resources organizational dedicated for implementation and on-going operations including physical space and time. Inclusion Criteria: Include statements related to the presence or absence of resources specific to the innovation that is being implemented. Exclusion Criteria: Exclude statements related to training and education and code to Access to Knowledge & Information.
Bvii. Access to Knowledge & Information	Definition: Ease of access to digestible information and knowledge about the innovation and how to incorporate it into work tasks. Inclusion Criteria: Include statements related to implementation leaders' and users' access to knowledge and information regarding use of the program, i.e., training on the mechanics of the program. Exclusion Criteria: Exclude statements related to engagement strategies and outcomes, e.g., how key stakeholders became engaged with the innovation and what their role is in implementation, and code to Engaging: Key Stakeholders.
Characteristics of Individuals	
A. Knowledge & Beliefs about the Innovation	Definition: Individuals' attitudes toward and value placed on the innovation, as well as familiarity with facts, truths, and principles related to the innovation. Inclusion Criteria: Include evidence strength and quality (innovation characteristics) as well as individual beliefs. Exclusion Criteria:
B. Self-efficacy	Definition: Individual belief in their own capabilities to execute courses of action to achieve implementation goals. Inclusion Criteria: Include statements about belief in own ability to implement.

	Exclusion Criteria: Exclude statements describing belief in ability of others.
C. Other Personal Attributes	Definition: A broad construct to include other personal traits such as tolerance of ambiguity, intellectual ability, motivation, values, competence, capacity, and learning style. Inclusion Criteria: Exclusion Criteria:
Process	
A. Planning	Definition: The degree to which a scheme or method of behavior and tasks for implementing an innovation are developed in advance, and the quality of those schemes or methods. Inclusion Criteria: Include evidence of pre-implementation diagnostic assessments and planning, as well as refinements to the plan. Exclusion Criteria:
Ai. Process/Planning/ Strategic Plan	Definition: The strategic plan of the organization as part of the plan for implementing an innovation. Inclusion Criteria: Statements mentioning use of the strategic plan as a way to implement. Exclusion Criteria: Do not include statements that don't mention strategic plan.
Aii. Process/Planning/ Just happened	Definition: Reference to lack of planning and that the innovation just presented itself, or fell into their laps so to speak. Inclusion Criteria: Statements referencing a lack of planning or lack of intention with respect to the intervention. Exclusion Criteria: Do not include statements that discuss intentional planning.
Aiii. Process/Planning /Levels of Intervention	Definition: Socio-ecological model levels of intervention: intrapersonal, interpersonal, community, institutional, research, policy. Inclusion Criteria: Statements mentioning the levels of intervention or socio-ecological model as a way of planning to implement the intervention. Exclusion Criteria: Do not include statements that don't mention levels of intervention.
B. Engaging	Definition: Attracting and involving appropriate individuals in the implementation and use of the innovation through a

	combined strategy of social marketing, education, role modeling, training, and other similar activities. Inclusion Criteria: Include statements related to engagement strategies and outcomes, i.e., if and how staff and innovation participants became engaged with the innovation and what their role is in implementation OR how key stakeholders became engaged with the innovation and what their role is in implementation. Exclusion Criteria: Exclude statements related to planning implementation.
C. Executing	Definition: Carrying out or accomplishing the implementation according to plan. Inclusion Criteria: Include statements that demonstrate how implementation occurred with respect to the implementation plan. Note: Executing is coded very infrequently due to a lack of planning. However, some studies have used fidelity measures to assess executing, as an indication of the degree to which implementation was accomplished according to plan. Exclusion Criteria:
D. Reflecting & Evaluating	Definition: Quantitative and qualitative feedback about the progress and quality of implementation accompanied with regular personal and team debriefing about progress and experience. Inclusion Criteria: Include statements that refer to the implementation team's (lack of) assessment of the progress toward and impact of implementation, as well as the interpretation of outcomes related to implementation. Reflecting and Evaluating is part of the implementation process; it likely ends when implementation activities end. It does not require goals be explicitly articulated; it can focus on descriptions of the current state with real-time judgment, though there may be an implied goal (e.g., we need to implement the innovation) when the implementation team discusses feedback in terms of adjustments needed to complete implementation. Exclusion Criteria: Exclude statements related to the (lack of) alignment of implementation and innovation goals with larger organizational goals, as well as feedback to staff regarding those goals, e.g., regular audit and feedback showing any gaps between the current organizational status and the goal, and code to Strategic Plan. Exclude statements that capture reflecting and evaluating that participants may do during the interview, for example, related to the success of the implementation, and code to Knowledge & Beliefs about the Innovation.
E. Lessons Learned	Definition: Reflections about the implementation process, things that the individual would do differently next time, and advice they would share with others.

	Inclusion Criteria: Statements that indicate reflection on the process/project and things they would do differently, learned through the process, and articulate in a reflective manner. Exclusion Criteria: Do not include comments about things they would not do differently.

IV. Final Codebook

Intervention Characteristics	
A. Relative Advantage	Definition: Stakeholder perception of the advantage of implementing the innovation versus an alternative solution. Inclusion Criteria: Include statements that demonstrate the innovation is better (or worse) than existing programs. Exclusion Criteria:
B. Adaptability	Definition: The degree to which an innovation can be adapted, tailored, refined, or reinvented to meet local needs. Inclusion Criteria: Include statements regarding the ability to adapt the innovation to their context, e.g., complaints about the rigidity of the protocol. Include statements that the innovation needed to be adapted. Exclusion Criteria: Exclude or statements that the innovation did not need to be adapted.
C. SC Workgroup	Definition: Mention of the structural competency workgroup as helpful as the source of the implementation. Inclusion Criteria: Include statements specifically mentioning the workgroup. Exclusion Criteria: Exclude descriptions of other stakeholders and connections and code as cosmopolitanism.
Outer Setting	
A. Needs & Resources of Those Served by the Organization	Definition: The extent to which the needs of those served by the organization (e.g., patients), as well as barriers and facilitators to meet those needs, are accurately known and prioritized by the organization. Inclusion Criteria: Include statements demonstrating (lack of) awareness of the needs and resources of those served by the organization. Analysts may be able to infer the level of awareness based on statements about: 1. Perceived need for the innovation based on the needs of those served by the organization and if the innovation will meet those needs; 2. Barriers and facilitators of those served by the organization to participating in the innovation; 3. Participant feedback on the

	innovation, i.e., satisfaction and success in a program. In addition, include statements that capture whether or not awareness of the needs and resources of those served by the organization influenced the implementation or adaptation of the innovation. Include statements that demonstrate a strong need for the innovation. Exclusion Criteria: Exclude statements related to engagement strategies and outcomes, e.g., how innovation participants became engaged with the innovation, and code to Engaging: Innovation Participants.
Ai. Empathy	Definition: Empathy as a factor in the innovation helping to meet the needs and resources of those served by the organization. Inclusion Criteria: Include statements specifically using the word empathy or related words like compassion, understanding, etc. Exclusion Criteria: Exclude statements not specifically related to empathy-building as a reason for using the innovation.
Aii. Lens	Definition: The innovation provides a new lens through which to view the world generally or work specifically. The innovation is helpful in shifting the lens of staff towards the people they serve. Inclusion Criteria: Include statements that mention the word lens or other general comments about shifting worldview. Exclusion Criteria: Do not include statements that don't reference a shift in lens or worldview.
B. Cosmopolitanism	Definition: The degree to which an organization is networked with other external organizations. Inclusion Criteria: Include descriptions of outside group memberships and networking done outside the organization. Exclusion Criteria: Exclude statements about general networking, communication, and relationships in the organization, such as descriptions of meetings, email groups, or other methods of keeping people connected and informed, and statements related to team formation, quality, and functioning.
Inner Setting	
A. Implementation Climate	Definition: The absorptive capacity for change, shared receptivity of involved individuals to an innovation, and the extent to which use of that innovation will be rewarded, supported, and expected within their organization. Inclusion Criteria: Include statements regarding the general level of receptivity to implementing the innovation. Exclusion Criteria: Exclude statements regarding the general level of receptivity that are captured in the sub-codes.

Ai. Tension for Change	Definition: The degree to which stakeholders perceive the current situation as intolerable or needing change. Inclusion Criteria: Include statements that demonstrate a strong need for the innovation and/or that the current situation is untenable, e.g., statements that the innovation is absolutely necessary or that the innovation is redundant with other programs. Exclusion Criteria: Exclude statements regarding specific needs of individuals that demonstrate a need for the innovation, but do not necessarily represent a strong need or an untenable status quo, and code to Needs and Resources of Those Served by the Organization. Exclude statements that demonstrate the innovation is better (or worse) than existing programs and code to Relative Advantage. Exclude statements that describe the lack of tension for change.
Aii. Compatibility	Definition: The degree of tangible fit between meaning and values attached to the innovation by involved individuals, how those align with individuals' own norms, values, and perceived risks and needs, and how the innovation fits with existing workflows and systems. Inclusion Criteria: Include statements that demonstrate the level of compatibility the innovation has with organizational values and work processes. Include statements that the innovation did or did not need to be adapted as evidence of compatibility or lack of compatibility. Exclusion Criteria:
Aiii. Leadership Engagement	Definition: Commitment, involvement, and accountability of leaders and managers with the implementation of the innovation. Inclusion Criteria: Include statements regarding the level of engagement of organizational leadership. Exclusion Criteria:
Characteristics of Individuals	
A. Knowledge & Beliefs about the Innovation	Definition: Individuals' attitudes toward and value placed on the innovation, as well as familiarity with facts, truths, and principles related to the innovation. Inclusion Criteria: Include evidence strength and quality (innovation characteristics) as well as individual beliefs. Exclusion Criteria:
B. Self-efficacy	Definition: Individual belief in their own capabilities to execute courses of action to achieve implementation goals. Inclusion Criteria: Include statements about belief in own ability to implement.

	Exclusion Criteria: Exclude statements describing belief in ability of others.
C. Other Personal Attributes	Definition: A broad construct to include other personal traits such as tolerance of ambiguity, intellectual ability, motivation, values, competence, capacity, and learning style. Inclusion Criteria: Exclusion Criteria:
Process	
A. Planning	Definition: The degree to which a scheme or method of behavior and tasks for implementing an innovation are developed in advance, and the quality of those schemes or methods. Inclusion Criteria: Include evidence of pre-implementation diagnostic assessments and planning, as well as refinements to the plan. Exclusion Criteria:
Ai. Process/Planning/ Strategic Plan	Definition: The strategic plan of the organization as part of the plan for implementing an innovation. Inclusion Criteria: Statements mentioning use of the strategic plan as a way to implement. Exclusion Criteria: Do not include statements that don't mention strategic plan.
Aii. Process/Planning/ Just happened	Definition: Reference to lack of planning and that the innovation just presented itself, or fell into their laps so to speak. Inclusion Criteria: Statements referencing a lack of planning or lack of intention with respect to the intervention. Exclusion Criteria: Do not include statements that discuss intentional planning.
Aiii. Process/Planning/ Levels of Intervention	Definition: Socio-ecological model levels of intervention: intrapersonal, interpersonal, community, institutional, research, policy. Inclusion Criteria: Statements mentioning the levels of intervention or socio-ecological model as a way of planning to implement the intervention. Exclusion Criteria: Do not include statements that don't mention levels of intervention.
B. Engaging	Definition: Attracting and involving appropriate individuals in the implementation and use of the innovation through a combined strategy of social marketing, education, role modeling, training, and other similar activities.

	Inclusion Criteria: Include statements related to engagement strategies and outcomes, i.e., if and how staff and innovation participants became engaged with the innovation and what their role is in implementation OR how key stakeholders became engaged with the innovation and what their role is in implementation. Exclusion Criteria: Exclude statements related to planning implementation.
C. Executing	Definition: Carrying out or accomplishing the implementation according to plan. Inclusion Criteria: Include statements that demonstrate how implementation occurred with respect to the implementation plan. Note: Executing is coded very infrequently due to a lack of planning. However, some studies have used fidelity measures to assess executing, as an indication of the degree to which implementation was accomplished according to plan. Exclusion Criteria:
D. Lessons Learned	Definition: Reflections about the implementation process, things that the individual would do differently next time, and advice they would share with others. Inclusion Criteria: Statements that indicate reflection on the process/project and things they would do differently, learned through the process, and articulate in a reflective manner. Exclusion Criteria: Do not include comments about things they would not do differently.