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Barriers and Facilitators to Providing Trauma Informed Care at a Large Urban HIV Treatment Center in the Southeastern United States: Perceptions from the Clinic Staff and Providers

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BSc, Arizona State University, 2016

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An abstract of
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Abstract

TITLE: Barriers and Facilitators to Providing Trauma Informed Care at a Large Urban HIV Treatment Center in the Southeastern United States: Perceptions from the Clinic Staff and Providers

INTRODUCTION: The high prevalence of trauma and its impact on health and health-promoting behaviors among populations living with HIV underscore the need to integrate trauma informed care into HIV treatment. To date, there are no published studies of staff and provider's assessment of trauma-informed HIV care implementation in high-volume, resource constrained treatment contexts.

METHODS: Between March-August 2017, semi-structured interviews (n=19) and surveys (n=31) were conducted among staff and providers at a large, urban HIV treatment center predominately serving uninsured, low-socioeconomic patients in the southern US to identify strengths and gaps in the center's trauma-informed care (TIC) practices**.** The survey assessed the presence of 8 SAMSHA identified TIC domains: training and education, work force development, patient engagement, cross sector collaboration, physical environment, open/respectful communication towards patients, trauma screening/ follow up, and offering trauma-specific interventions/services. Subsequently, the interviews explored barriers to and facilitators of TIC.

RESULTS: Surveys identified treatment center (TC) strengths in the domains of open and respectful communication and offering services and trauma-specific interventions. Identified TC weaknesses were in the domains of trauma training and education and workforce development. Interviews highlighted the benefit of being a comprehensive clinic which allows patients to be connected to many onsite services related to trauma care. Participants described a lack of knowledge of available resources for trauma survivors and inconsistent screening throughout the clinics as a significant barrier to TIC. Many participants expressed a divisiveness between the clinics and employee levels, highlighting the need for better workplace collaboration and feedback practices and more support from administration to improve employee satisfaction.

CONCLUSIONS: Providers and staff highlighted many strengths and gaps in the TIC practices of the TC. We put forth recommendations that build upon center strengths and address the identified barriers to facilitate the creation of a multilevel implementation strategy to integrate TIC into the HIV services provided. If successfully adapted, the TC could serve as a HIV-TIC model for other high-volume, resource-constrained HIV clinics.

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"Thesis… it's a marathon. Not a sprint." – Shamia Moore, MPH Class of 2018

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Definitions:

***Thesis-Sunday** /THēsis -ˈsəndā (n) / – The coming together of individuals working on their thesis or capstones with the goal of encouraging focus for 8-12 hours. These sessions begin with goal setting and include hourly check ins to ensure that group members are not wasting time on their cellphones. Synonyms: *GraduateSunday*

****Thesis-cation** /THēsis - kāSH(ə) (n)/ - Spring break with a twist, five 12-hour thesis work days of, followed by a 2-3-day break which includes sunshine and wine pending the successful completion of thesis-cation goals. Synonyms: *Graduate-cation*

Table of Contents

CHAPTER 1: LITERATURE REVIEW

The experience of traumatic life events can be devastating to individual's development, mental health, and overall well-being. When coupled with the diagnosis of Human Immunodeficiency Virus (HIV), the resulting syndemic illness magnifies the challenges for individuals attempting to engage in treatment. HIV care providers face many challenges in serving this population. The needs of a trauma survivor can far surpass the knowledge and capacity of a single care provider, requiring a multidisciplinary approach to patient care. The trauma-informed approach to care attempts to realize, recognize, respond to and resist re-traumatization of populations that have experienced traumatic life events, which hinder them from fully engaging in health care. This care structure has shown promise in assisting providers in caring for challenging populations, giving them knowledge of how to successfully manage patients with traumatic histories. It integrates a multidisciplinary trauma informed approach to patients in whom trauma and HIV work syndemically to intensify the poor health outcomes associated with each. To inform public health plans to integrate trauma informed care (TIC) into comprehensive HIV care, this paper will highlight the benefits of implementing TIC in to HIV, explain the syndemic relationship between trauma and HIV, and highlight the importance of understanding the barriers and facilitators to providing TIC to people living with HIV (PLH), as faced by staff and providers to develop an implementation plan that works within the confines of a comprehensive HIV treatment center. Through this, we will present implementation strategies which build from staff and provider identified barriers and facilitators to TIC.

1.1 People Living with HIV (PLH) and Trauma

Epidemiology of Trauma and Human Immunodeficiency Virus (HIV)

Trauma, as defined by the Substance Abuse and Mental Health Services Administration (SAMSHA), is "events or circumstances experienced by an individual as physically or emotionally harmful or life-threatening and that [which have] lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being."[1] Trauma can be experienced in many ways, including but not limited to intimate partner violence (IPV), community-based violence (CBV), physical and sexual abuse as a child or adult, and can even extend to the experience of being diagnosed with a lifelong illness like HIV [2]. There are no boundaries with regard to age, gender, socioeconomic status, race, ethnicity, or sexual orientation when it comes to the reach of trauma, however, it has been observed that people living with HIV (PLH) in the United Stated experience significantly higher rates of trauma than the general population [1, 3].

Current literature describes people living with HIV as a group subject to disproportionately high rates of traumatic events, ranging between 10-90% [3]. This large range described in literature is due to the lack of

a uniform definition of trauma used throughout studies, however most studies have agreed that individuals with HIV have higher rates of trauma than the general population. One of the most notable of these studies examined the prevalence of trauma among HIV- infected persons in the Deep South and found that over 50% of their 611 participants were abused in their life time and about 30% experiencing the abuse before they were 13 years of age [4]. With over 50% of the population of this study reporting experiencing childhood trauma, this amounts to approximately 1.5-2 times greater than the rate of trauma in the general population [3, 4]. One study, which reported the highest rate of trauma among HIV patients, 91%, was examining the factors related to abuse that potentially contribute to the faster spread of HIV in the deep south. Using a sample of HIV patients engaged in clinical care in the deep South, they aimed at identifying characteristics of the population that can be targeted to improve the HIV care and guide prevention efforts in this region [5]. Ninety-one percent (91%) of the individuals in this study reported experiencing one or more traumatic event in their lifetime with over half experiencing 3 or more different types of trauma, and many of these traumas were experienced as a child [4, 5]. It was noted that only 46% of the participants were virally suppressed at study entry, even though 81% were using antiretroviral therapy (ART). It is believed that the high rates of trauma and mental health concerns in this population played a part in the low viral suppression observed as it is a suspected contributor to treatment interruptions and poor adherence [5].

HIV and Trauma co-exist in a fashion that is cyclic in nature, as factors associated with HIV infection are also associated with increased experiences of trauma, and experiences related to trauma exposure can lead to engagement in activities which increased risk for HIV. Factors including poverty and stigma are associated with increased experiences of trauma and increased likelihood of HIV infection [6]. As previously mentioned, experiences of trauma during childhood are all too common in PLH, and studies have shown that repeated traumatization during childhood increases the likelihood of individuals engaging in HIV risk behaviors, including substance abuse and sexual promiscuity which increase the risk of contracting HIV [6]. A bidirectional link between IPV and HIV has been drawn and is believed to be mediated by a history of childhood sexual abuse and post-traumatic stress disorder, which is recorded at alarmingly high rates in women living with HIV [7, 8]. Subsequently, a higher occurrence of violence exposure post-HIV diagnosis can be predicted by a number of factors including a number of historical, socio-demographic, and clinical variables; younger age, marital status (single/widowed/divorced), history of drug dependence, previous physical or sexual abuse, depression, multiple sexual partners, and higher CD4 counts [9-12]. Many of these variables have been shown to be associated with the experience of trauma and lead to poorer health outcomes among those who are HIV positive and experience trauma. Essentially, the syndemic relationship between HIV and trauma is perpetuated in a cyclic fashion, in which trauma that has the potential to lead to HIV infection through an increase in risk behaviors, behaviors which

can be perpetuated and often times amplified by the diagnosis of HIV. Trauma can create a barrier to accessing care, either through continual threat of abuse or the inability to cope with or manage mental health outcomes created by past traumas [13, 14].

Types of Trauma and the Associated Epidemiology Among PLH

According to SAMHSA, traumatic events are those that are physically or mentally harmful and have lasting harmful effects on an individual's ability to function [1, 15]. The traumatic events described by this organization include emotional, physical and sexual abuse, neglect, bullying, community-based violence, disaster, terrorism, and war. Sexual violence which includes unwanted or coerced sexual contact, as well as exposure to age-inappropriate sexual acts, materials, or environments occurs in both adults and children. Physical abuse is defined as infliction of physical pain, with or without the use of a weapon, as well as acts of commission (other than physical or sexual abuse) against an individual, leave devastating effects on an individual's ability to function to their full potential [1, 15]. Neglect which is the most common form of abuse reported by child welfare, is when the primary caregiver withholds basic needs that they have the ability to provide. Neglect occurs in both children and adults and can also include exposure to dangerous environments [15]. According to one study, 68% of HIV-infected women and 35% of HIV-infected men reported experiencing sexual assault. A similar study reported 66% of their participants, all of which were HIV positive, reported experiencing physical or sexual assault as a child [16].

Intimate Partner Violence (IPV) is defined by the CDC as "physical violence, sexual violence, stalking, and psychological aggression by a current or former intimate partner [17]." IPV has been associated with HIV infection in both cross-sectional [18] and prospective studies [19, 20], where researchers attribute forced sex, heightened HIV risk among perpetrators, and reduced ability to negotiate condom use due to the violent nature of the relationships as primary risk factors for contracting HIV in IPV relationships [21]. Among the HIV community, IPV is experienced by approximately 68-95% of women, 68-77% of men, and 93% of transgender people [21-25]. Not only does IPV create a barrier to HIV care access, but it has been linked to less HIV testing among high risk groups in Atlanta [13].

Child sexual assault (CSA) has been associated with HIV risk behaviors, including risky sexual encounters, substance and alcohol abuse [26, 27]. The rate of CSA in men who have sex with men (MSM) reported by Mimiaga *et al* was found to be 39.7%, which was substantially higher than rates found in the general male US population [3, 26]. MSM are a group that is burdened by 70% of all new HIV infections, and the increase experience of CSA is believed to play a role in the increased infection rate of this group [14, 28]. Among HIV positive women, a history of CSA was associated with a lifetime history of drug use; being with a partner at risk for HIV; having more than 10 lifetime male partners; trading sex for money, drugs, or shelter; and being forced to have sex with an HIV-positive partner [29]. Cohen *et al* also reported that 31% of the

HIV-seropositive women and 27% of the HIV-seronegative women reported childhood sexual abuse [29]. CSA is associated with mental health outcomes including depression, PTSD, as well as increased substances and alcohol use all which can be described as barriers to accessing and engaging in efficient HIV treatment, as will be explained in the next section of this paper.

Community based violence is described by SAMSHA as extreme violence in the community, including exposure to gang-related violence, interracial violence, police and citizen altercations, and other forms of destructive individual and group violence [15]. A study which examined HIV sexual risk behaviors and their relationship to community violence found that males who were victims of community violence were more likely than their counterparts to engage in HIV sexual risk behaviors [30]. They found that over half of their sample (55.8%) had experiences being robbed or mugged, 22.5% had indicated CSA, and 65.8% of this group had engaged in one or more HIV risk behaviors in the past 12 months [30]. In addition to community violence having a strong association with the development of HIV, Quinn *et al* found that HIV positive individuals with a history of experiencing or witnessing community violence also experience poorer psychological health, increased drug use, condom less anal intercourse, and lower ARV medication adherence [31]. Both a mediator for increased HIV risk behaviors, and a barrier to retaining and engaging patients in care, community violence as a form of trauma must be considered in prevention and treatment strategies as it is a trauma that is relatively common among the HIV-positive community [30, 31].

Physical assault is believe to directly affect immune function and other bodily systems, which may lead to more serious complications for PLH [32-34]. Research suggests that a diagnosis of HIV increases the risk of physical and emotional violence at the time of disclosure to social relationships [34-37]. In a US probability sample of HIV patients in primary care, Zierler *et al* found that nearly 45% of adults reporting harm since HIV diagnosis, noted that some of this harm was prompted by disclosure of their status to someone of importance [34].

What some studies fails to recognize is that being diagnosed with a lifelong illness like HIV is a trauma in itself. As the HIV epidemic grew and spread around the world, fear and stigma against individuals who were diagnosed with the disease mounted and remains strong today. The stigma associated with an HIV diagnosis is a severe stressor among patients and many describe symptoms of post-traumatic stress disorder (PTSD) following their diagnosis [38]. Like other traumatic events, an HIV diagnosis, coupled with the severe stigma faced by PLH, can have negative repercussions on a patient's capacity and willingness to disclose their status to their support systems, medication adherence due to fear that someone will see their prescriptions, and overall quality of life [38]. To effectively manage the medical component of an HIV diagnosis, we must first recognize and adequately address the trauma that all HIV patients face, which is having a diagnosis of HIV.

Trauma, in all its forms, have been observed at higher rates among the HIV infected population in the United States and managing this trauma in correlation with managing the medical aspects of HIV are necessary for effectively treating these patients, engaging them in long term care, and improving their quality of life.

Patient Retention and Engagement in HIV Care

The Centers for Disease Control and Prevention (CDC) estimates that 1.1 million adults and adolescents were living with HIV at the end of 2015 in the United States. Of those, only 85% were diagnosed, 62% received some HIV medical care, and only 48% were retained in continuous HIV care and had virologic suppression [28]. In Georgia, the number of undiagnosed individuals, 18%, is higher than the national average, and in parallel with national estimates, only 48% of the HIV population is reported as retained in care[39]. Retention in care is defined by the Georgia Department of Public Health as at least 2 HIV care visits at least 3 months apart in one year. Additionally, viral suppression is defined as <200 copies/ml which acts as a significant marker for preventing progression to AIDS [39]. Continual HIV care using Antiretroviral Viral Therapy (ART) provides patients the opportunity to reduce their viral load to an undetectable state and studies have shown that viral suppression in this manner reduces transmission by about 96% [39]. Literature supports the notion that trauma, in its many forms, leads to the manifestation of poor mental health, substance abuse, and reduced self-image all which are barriers to retaining HIV patient in care and encouraging ART adherence.

Of the many predefined ways individuals, can experience trauma, IPV, has been the subject of many studies regarding the impact of trauma on HIV medical care adherence. There are a series of ways which IPV can lead to reduced medication adherence and retention in care, the first is a physical barrier to access care created by the abusive partner [21]. This can include a fear of new or continued IPV [21, 40, 41], or other physical harm which can prevent individuals from disclosing their status, and challenges the ability to adhere to medication regimens, attend appointments, and remain consistent in HIV care [21, 42, 43].

It is believed that the consequences of IPV on a victim manifest biologically as well. One study found significant differences in immune cell function, cytokine levels, and hemoglobin between IPV exposed and unexposed women [44]. Though this study could not draw a causative link between the IPV and the cell function, due to its cross-sectional nature, there was a significant difference between IPV exposed and unexposed groups [44].

Another plausible mechanism which could drive the relationship between IPV and engagement in HIV care is the correlation between IPV and poor mental health outcomes. Pico-Alfonso *et al* concluded that physiological, physical and sexual IPV has negative effects on women's mental health showing that women

who experience these types of trauma have an increase in depressive symptoms, PTSD, anxiety and thoughts and attempts of suicide [45]. Like IPV survivors, individuals who experience CBV and CSA have an increased likelihood of substance use. Quinn *et al* concluded that exposure to community violence was positively associated with daily tobacco use, daily and weekly marijuana use, and lifetime use of hard drugs or hard drug use in the previous 3 months in young black MSM who have HIV. As levels of CBV exposure increased, the odds of hard drug use in the previous 30 days increased 6-fold [31]. This same study concluded that individuals with exposure to high levels of CBV had significantly lower odds of medication adherence as compared to their counterparts with low levels of CBV. Like IPV, studies have also drawn a link from CBV to psychological disorders, including PTSD and depressive symptoms. Physical and sexual abuse in the form of IPV and CSA are among the most commonly reported experiences of trauma by PLH, and the manifestation of these experiences on mental health and substance abuse are two key paths to explaining the relationship between trauma and decreased medication adherence and retention in HIV care [10-14, 21, 27, 29, 46, 47].

Mental health disorders like PTSD and depressive symptoms were found to be highly correlated with one another however studies found that the presence of depressive symptoms was the main predictor of poor adherence to medication regimens among HIV patients [48, 49]. Many prospective longitudinal studies have observed a relationship between depressive symptoms and decreased CD4 counts [50], faster progression to AIDS [51], increased mortality rates from AIDS, and decreased t-cell counts [52]. The exact mechanism of between poorer mental health and decreased immunologic function is not clear however correlations between the two are apparent in literature [49]. In one study, patients experiencing depression explained that they sleep through appointments, and sometimes don't want to be "bothered" to travel to the treatment center [53]. Some patients in this study expressed that they did not care if they lived or died, showing apathy towards their health, a symptom of experiencing depressive symptoms [53]. In addition to the impact of poor mental health facilitated by the experience of trauma, substance abuse is found to be common among HIV patients that report a history of experiencing trauma. Felitti *et al* have shown the association of CSA and other adverse exposures to increased risks for alcoholism and drug abuse [54]. Some individuals turn to substance abuse as a coping mechanism to deal with their past issues of trauma, either to forget the experiences or numb themselves from the physical and psychological pain they feel from enduring such experiences. In one study, substance abuse was found in HIV patients retained and not retained in care and these patients described forgetting or actively choosing not to go to health care appointments when actively using drugs [53].

Another plausible explanation for the gap in adherence to medical care among HIV patient with a history of trauma is that individuals with a history of trauma in the form of abuse report less satisfaction with their

medical provider relationships than those who have not experienced abuse [55]. McNutt *et al* reported that women who have experienced abuse are more likely to feel that their providers are judgmental, annoyed, and disrespectful and find it hard to divulge their emotional issues with their providers [55, 56]. This creates a barrier for acknowledging the patient's trauma during their medical encounters and linking them to care and making patients less likely to remain engaged in their medical care [55, 56]. Leenerts explains that damaged self-image as a result of abuse can produce disconnection from self-care, and if patients cannot identify a benefit to engaging in care, they are less likely to do so [55, 57].

After the physical barriers and fear of disclosing or seeking HIV care, survivors of IPV face another substantial barrier to access and adhering to care and that is shame. Survivors of violence often experience self-blame and guilt and feel shame in sharing their experiences with others and find it hard to depend on support systems for their health conditions [58]. In a qualitative study, women who were survivors of abuse reported depressive symptoms including loss of interest and enjoyment as well as some attempted suicide after a traumatic experience [58]. Depressive symptoms like these only compound the many barriers HIV positive individuals face while trying to maintain medical care. In one study whose populations consisted of HIV-infected patients with depression in the Southeastern United States, individuals with a high number of stressful and traumatic life events (STLEs) had a lower likelihood of achieving or maintaining ≥95% adherence [59]. Participants who experienced at least 9 STLEs in a month had 18% lower likelihood of ≥95% adherence in that same month, compared to those experiencing less than the median number [59]. There is a clear relationship between the syndemic illness that is trauma and HIV which hinders medication adherence and overall patient health among the HIV population.

Addressing the relationship between these two conditions through concurrent treatment is critical in assisting patients suffering from severe trauma on their path to successful HIV care including retention in care, adherence to medications and viral suppression.

1.2 Trauma Informed Care

Overview

The Substance Abuse and Mental Health Services Administration (SAMHSA) is an agency within the U.S. Department of Health and Human Services that leads public health efforts to advance the nations behavioral health [1]. With a mission to reduce the impact of substance abuse and mental illness, SAMHSA has recognized the syndemic relationship between trauma and substance abuse and has created a trauma-informed approach to care that focuses on four core objectives: 1) **realizing** the widespread impact of trauma understanding the potential paths to recovery, 2), **recognizing** the signs and symptoms of trauma in clients, families, staff, and others involved, 3) **responding** fully by integrating knowledge about trauma

into policies, procedures, and practices, and 4) actively **resisting** re-traumatization [1, 60]. This approach was developed as a way to mediate behavioral health care by shifting away from the narrative of "What's wrong with the person?" to a more holistic view of "What happened to this person?" Trauma informed care (TIC) is a framework for an approach that can be implemented in any type of service setting or care and attempts to address the consequences of trauma and facilitate the recovery process while promoting sensitivity and empathy from the care providers [60].

In order to develop trauma informed care interventions that will work to facilitate recovery, SAMHSA has developed six key principles which need to be present in any intervention that claim to be trauma informed. These six principles include physically and psychologically **safety** which should be felt by both staff and patients, organizational **trustworthiness and transparency** aimed at maintaining trust among staff, clients, and family members, **peer support and mutual self-help, collaboration and mutuality** between staff administration and clients, **empowerment, voice, and choice** throughout the organization including among staff and clients, and organization consideration of c**ultural, historical, and gender issues** that clients may experience [60]. Using these standards, Fallot *et al* developed, Creating Cultures of Trauma Informed Care (CCTIC), a self-assessment and planning protocol for organizations interested assessing current levels of TIC provided within a treatment center [61]. This tool provides organizations with an outline for facilitating culture change within an organization towards being more trauma-informed using four steps. This research focuses on step one, initial planning, which allows organizations to assess the current level of TIC provided and identify areas in need of improvement and change teams to help facilitate these improvements. Step one aims to gain a comprehensive view of the experiences of both staff and consumers as they utilize organizational offered services. Through capturing these groups and detailing their experiences from the beginning to the most recent experience with the organization, the individual performing the assessment can identify strengths and weakness of the organization in performing TIC and prioritize organization changes that will facilitate better provision of TIC.

This research will focus on data provided by staff and providers at an HIV treatment center and will use domains relevant to the treatment center where the research is conducted. The planning document outlines TIC domains to focus on when assessing an organization, as they relate to the organization being assessed. For the scope of this work, we will focus on 8 SAMSHA identified, and CCTIC supported domains; i) Training and Education, ii) Work Force Development, iii) Patient Engagement and Involvement, iv) Cross Sector Collaboration, v) Physical Environment, vi) Open and Respectful Communication Towards Patients, vii) Trauma Screening and Follow Up, and viii) Offering Services and Trauma-Specific Interventions.

The CCTIC model is considered the "gold standard" in assist organizations in transitioning to TIC. To our knowledge, it has not yet been used in HIV care settings, though the link between trauma HIV and worse health outcomes is well established in literature [3, 61].

Trauma Informed Care and HIV

Many researchers believe that a trauma informed care approach (TIC) to HIV care can promote recovery from traumatic illness and aid in the consistent continual care of HIV patients. One study surveyed literature and reviewed the results of eight TIC interventions used to either prevent HIV or improve sexual health outcomes [22]. Of the eight studies that were examined, three took place in the United States, two of which were done as a primary prevention strategy, and one as a secondary treatment intervention. The Project IMAGE intervention produced by Champion and Collins was able to reduce STIs at 6 and 12-month post intervention among Mexican and African- American women aged 14-18 years old. The women in this study had a history of abuse and STIs and were seeking sexual health care at the time they enrolled in this study [22, 62]. Another intervention called the SEPA, randomized individuals to a controlled experimental study based on the social cognitive theory [63]. This study was conducted among 18-50year-old Hispanic women. These women participated in 2-hour group sessions where they were offered information around HIV/STI prevention as well as partner negotiation and communication, IPV and substance abuse. Peragallo *et al* found a decrease in chlamydia rates, substance abuse and IPV as well as an increase condom use, and an increase in prevention mediators like communication [22, 63]. The third intervention which was conducted among HIV-positive African American men who have sex with men and women (MSMW) aimed at changing sexual behavior and improving psychological health, with a strong consideration of trauma histories and addressing cognitive distortions, negative thoughts, and emotions related to the trauma [22, 64]. In this instance, they found that episodes of unproductive anal insertive sex and depressive symptoms were reduced [64]. In these three studies, there is evidence that a trauma-informed approach to care can reduce barriers to HIV care engagement and improve the sexual health of HIV-infected patients through improved mental health, prevention of additional IPV experience and substance abuse, and reduction in sexual risk behaviors and STIs.

A randomized control trial which examined coping effectiveness training (CET) in HIV-infected trauma survivors found that CET was associated with increased coping efficacy, greater reduction in perceived stress, lower levels of distress, and most notably improved adherence to treatment [6, 65]. Another intervention which used weekly support groups facilitated by para-professionals trained in trauma counseling, to support HIV-infected patients found improvement in psychological functioning, behavioral empowerment, and physical health. Additionally, individuals on ART reported an increase in adherence and a new-found comfort in disclosing their HIV status [6, 66].

Much of the current literature on TIC suggests that a TIC approach to care can reduce many symptoms related to trauma as well as encourage treatment adherence among individuals who use ART. There is, however, a pressing need for more studies on the benefits of using a TIC approach to care. Gaps exist in literature describing the relationship between the different components of TIC described by CCTIC and SAMSHA and the impact on patient health outcomes is lacking. This information could be useful for resource-limited environments in helping to prioritize which components of TIC are most effective in improving health outcomes if they cannot introduce all aspects of TIC. The impact of adoption of TIC on treatment center staff also has yet to be explored. TIC will be another component of care that can either increase staff and provider workload or alleviate burden, but this has yet to be determined. Incorporating TIC as a clinic culture would need to be done in a way that assists providers and staff in managing their patient loads and minimizes excess burden, as treatment center staff frequently report feeling overworked and underappreciated. To our knowledge, literature has not yet explored the barriers and facilitators to providing TIC enumerated by staff and providers. Such knowledge could provide important insight to organizations aiming to become more effective in the care they provide from the individuals who work directly with patients.

1.3 Barriers to Patient Engagement in HIV Care

HIV care staff and providers will be the focus of this research as there has been a lack of research on organizational and structural barriers that they face when attempting to provide and retain patients in HIV care. We will be specifically aiming to understand the barriers to adopting and providing trauma informed medical care to HIV patients.

Patient-related Barriers to Retention and Engagement in Care

Understanding patient-perceived barriers to enrollment, retention and engagement in care is the first step in forming lasting interventions to connect and retain HIV-positive patients in ART care. Govindasamy *et al* produced a systematic review aimed at characterizing patient and programmatic factors associated with retention in care. They started by identifying common predictors of patients whom would be likely to enroll in HIV care, which were individuals whom disclosed one's status, had perceived poor health, and low CD4 count [46]. Some of the common predictors of non-entry into HIV care included distance to the testing center, cost of transport, being a male and or younger in age, having advanced immunodeficiency and lower levels of education [46]. Twenty-five studies were then reviewed to compile a list of barriers to accessing and remaining in HIV care. Barriers were listed into four categories: psychosocial, health system, economic, and medical barriers [46]. The first category, psychosocial barriers, includes stigma, fear of status disclosure, and drug toxicities. The main reported health system barriers were long clinic waiting times, and shortage of healthcare workers. Additionally, the economic barriers on patients greatly affected the

patient's ability to access care consistently. These barriers included transportation costs, distance to health facility, food shortage, and patients needing to take time off work to complete the already reported long clinic visits. The fourth category, medical barriers, mainly included treatment for Tuberculosis (TB), which is a daunting task for many patients that experience co-infections [46]. Counter to literature reviewed in this paper, the 25 studies examined in this review did not identify the impact of trauma, specifically violence on ART adherence. It is possible that the strict inclusion criteria used by the researchers lead to exclusion of papers that discussed violence. [46]. Understanding patient reported barriers to accessing care is the first step to creating interventions that clinics can use to effectively engage patients in care for the long term.

Provider-related barriers to Patient Retention and Engagement in HIV care

In 2015, Kinsky *et al* examined the barriers and facilitators to implementing access to HIV care interventions from the perspectives of providers and staff [67]. The access to care intervention that they analyzed was the Positive Charge (PC) interventions implemented in five U.S. sites, aimed at addressing individual level and structural factors related to engagement in care. Using qualitative interviews, they found that the barriers and facilitators fell into four categories: environmental factors; collaboration; staffing, and role confusion [67]. Environmental factors were a huge barrier to successfully implementing this intervention as funding, lack of providers, and inability to transport patients back and forth from their appointments became a huge burden on staff. Collaboration was a huge asset to this implementation as it was dependent on staff being engaged with each other for better patient outcomes. Interviewees reported the benefits of having closer working relationships with staff as they saw it as a method for providing a higher level of service to their patients. Staffing was the biggest constraint and facilitator of successful implementation cited in this study. The implementation of a care coordinator in this study was met with resistance by the staff at the clinics due to the unclear role description of the coordinator. Some study sites mention that there was some territorial behavior from staff about duties and patients that made implementation of this program complicated [67].

Provider Burnout as a Barrier to Patient Retention and Engagement in HIV care

Many publications have noted the tendency for burnout to occur in providers who care for PLH. Provider burnout has long been recognized as turning once-enthusiastic physicians and staff to feeling drained, cynical, and ineffective and in treatment facilities that provide care for a demanding patient populations like HIV this outcome can be experienced even sooner [68]. Two of the factors cited by HIV care providers as contributing to burnout are powerlessness in their work and lack of resources for career development [69]. These factors are associated with organizational structures that do not encourage providers and staff to provide feedback and engage in their work environment. Symptoms of burnout including emotional exhaustion, reduced personal accomplishment, and loss of a positive attitude toward clients undermine the

providers ability to provide efficient health care [69, 70]. Another study identified three strategies to alleviate burnout among HIV providers including; increasing adequate staff communications; developing skills in collaboration; and encouraging the expression of their own feelings about working [70]. Burnout is also connected with decreased provider efficacy which can result in a loss of revenue for the treatment center, which may have to have more staff to make up for the lack of productivity [70]. TIC approaches to care require the engagement of staff and providers and incorporate their feelings of safety, job satisfactions, and selfcare [61] which may have reduced burnout among staff. This link has not yet been described in literature but should be considered in future studies.

Substantial literature has emerged examining patient-related barriers to HIV care engagement, and even staff-related barriers to incorporating interventions, but little research has examined structural barriers to providing HIV care, and specifically trauma-informed HIV care, from the staff/provider perspective. HIV care providers often act as the sole medical provider for many PLH and would present as a key opportunity to acknowledge and manage trauma and trauma related health outcomes. The acknowledgment of the presence of burnout among HIV care providers and the subsequent effect it has on providing effective patient care, and revenue in the health care system are ample reasons to further study TIC in the context of HIV care providers. Additionally, it is possible that there are inefficient processes that exist within treatment centers which undermine the staff and providers ability to provide efficient care for patients and to understand these we have to illicit the information directly from the individuals who do the work every day. This gap in knowledge of provider and staff perceived structural barriers to providing TIC leaves clinic administration without guidance on how to more successfully incorporate clinic practices that meet the needs of their employees while providing patients with care that is necessary for them to successfully engage in their medical treatment. This research will be aimed at discovering the structural barriers faced by providers and staff to develop strategies to alleviate these barriers and successfully implement a TIC model in to a comprehensive HIV treatment center.

1.4 Study Setting

Atlanta is facing epidemic proportions of HIV and AIDS, levels that are comparable to developing countries [71]. The number of HIV-positive of people living in Atlanta in 2015 was 32,818, 80% of which were men, and 70% African American [72]. Each year, approximately 1,700 diagnoses of HIV are made, increasing the burden on Atlanta's healthcare system as it finds new and innovative ways to connect and maintain these patients in HIV care. Kalichman *et al* researched the barriers to accessing care among HIV patients in Atlanta and found that day to day survival needs are the biggest burden patients face. The most significant needs that participants mentioned were housing, food and transportation [73]. In the male populations, stress and alcohol consumption played the biggest role in failure to access HIV services, while it was found

that unmet service needs in women was associated with low medication adherence. Both men and women mentioned experiencing significant depressive symptoms, though neither group identified why they were experiencing these symptoms [73]. These researchers believe that investment in onsite referrals, follow-up and creation of social safety nets can help close some of the gaps in providing care to the Atlanta HIV positive community [73]. Managing the causes of the depression symptoms will also be imperative, and as we have explained, trauma can lead to depression and should be addressed as a component of HIV medical care.

The study center for this work is a large, comprehensive Ryan White funded treatment center dedicated to treatment of HIV/AIDS in the United States (US). This center provides primary medicine and infectious disease subspecialty care for approximately 5000 patients per year with the support of doctors, nurse practitioners, physician assistants, nurses and more than 100 staff. As a comprehensive treatment facility available services include: Primary medical care for men, women, adolescents, and children living with HIV/AIDS, transition centers for HIV-infected individuals with <200 CD4 cells, subspecialty care in dermatology, hepatitis C, mental health/substance abuse treatment, ophthalmology, and oral health, case management, adherence counseling, nutrition, on-site radiology, laboratory, pharmacy, and peer counseling. Additionally, this facility is partnered with community organizations which aid patients in locating housing, food, legal services and more. The comprehensive care structure provided at this center renders it an ideal choice for TIC research as the center already demonstrates commitment to addressing the multifaceted complex contributors to patient retention.

1.5 Study Aims

In the United States, PLH are subjected to significantly higher rates of trauma (both violent and nonviolent forms). Exposure to traumatic life events predicts mental disorders, medical morbidity, diminished adherence to HIV care, increases healthcare costs, and reduces the overall quality of life for PLH. Trauma informed care seeks to incorporate better management of patients whom experienced trauma in order to encourage better health care outcomes. The barriers to HIV care adherence have been thoroughly vetted, however, barriers to incorporating TIC from the staff and providers perspective have been overlooked. This research aims to inform public health efforts to integrate trauma informed care into HIV treatment center operations. Using an exploratory mixed methods study design, we seek to assess TIC at a large comprehensive Ryan White funded treatment center describing the following research objectives across the 8 SAMSHA identified TIC domains:

> ***Objective 1:*** *What are* staff and provider's perceptions about the current level of trauma informed care provided to patients at this treatment center?
>
> ***Objective 2:*** Identify barriers to providing TIC as perceived by the clinic staff and providers.

Objective 3: Identify facilitators to providing TIC as perceived by the clinic staff and providers.

Objective 4: Generate concreate strategies to address service delivery gaps related to TIC using barriers and facilitators enumerated by staff and providers.

CHAPTER 2: MANUSCRIPT

2.1 Abstract

Title: Barriers and Facilitators to Providing Trauma Informed Care at a Large Urban HIV Treatment Center in the Southeastern United States: Perceptions from the Clinic Staff and Providers

Introduction: The high prevalence of trauma and its impact on health and health-promoting behaviors among populations living with HIV underscore the need to integrate trauma informed care into HIV treatment. To date, there are no published studies of staff and provider's assessment of trauma-informed HIV care implementation in high-volume, resource constrained treatment contexts.

Methodology: Between March-August 2017, semi-structured interviews (n=19) and surveys (n=31) were conducted among staff and providers at a large, urban HIV treatment center predominately serving uninsured, low-socioeconomic patients in the southern US to identify strengths and gaps in the center's trauma-informed care (TIC) practices**.** The survey assessed the presence of 8 SAMSHA identified TIC domains: training and education, work force development, patient engagement, cross sector collaboration, physical environment, open/respectful communication towards patients, trauma screening/ follow up, and offering trauma-specific interventions/services. Subsequently, the interviews explored barriers to and facilitators of TIC.

Results: Surveys identified treatment center (TC) strengths in the domains of open and respectful communication and offering services and trauma-specific interventions. Identified TC weaknesses were in the domains of trauma training and education and workforce development. Interviews highlighted the benefit of being a comprehensive clinic which allows patients to be connected to many onsite services related to trauma care. Participants described a lack of knowledge of available resources for trauma survivors and inconsistent screening throughout the clinics as a significant barrier to TIC. Many participants expressed a divisiveness between the clinics and employee levels, highlighting the need for better workplace collaboration and feedback practices and more support from administration to improve employee satisfaction.

Conclusion: Providers and staff highlighted many strengths and gaps in the TIC practices of the TC. We put forth recommendations that build upon center strengths and address the identified barriers to facilitate the creation of a multilevel implementation strategy to integrate TIC into the HIV services provided. If successfully adapted, the TC could serve as a HIV-TIC model for other high-volume, resource-constrained HIV clinics.

2.2 Introduction

In 2015, approximately 1.2 million adults and adolescents were living with HIV in the United States and only 48% of that population was retained in continuous medical care [28]. Of the many barriers patients face to engaging in HIV care, histories of trauma (i.e. childhood/adult physical and sexual abuse, intimate partner violence (IPV), community violence) are at the forefront of research due to their great impact on HIV medical care engagement [1, 2, 15]. Trauma, is defined by the Substance Abuse and Mental Health Services Administration (SAMSHA) as "events or circumstances experienced by an individual as physically or emotionally harmful or life-threatening and that [which have] lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being[1]." Trauma occurs with high frequency in HIV-infected populations. For example, IPV is experienced by approximately 68-95% of HIV infected women, 68-77% of HIV infected men, and 93% of HIV infected transgender people [21-25] and 25% of PLH experience childhood physical and/or sexual abuse before the age of 13 [3, 14, 28]. Traumatic life events are associated with the development of post-traumatic stress disorder, which can manifest physically and psychologically, depression and anxiety, each a mental health disorder that can impede patient attempts of accessing and engaging in HIV care [74]. Further, trauma has been associated with worse health outcomes like low adherence to antiretroviral therapy, lower CD4+ T-cell counts [75], increased opportunistic infections [76] and episodic diseases; including bacterial and viral pneumonia, bronchitis or sinusitis, cellulitis, deep vein thrombosis, pulmonary embolism, septic arthritis, and endocarditis [77]. A greater risk of mortality and an overall lower quality of life [21] is also associated with the experience of trauma in PLH. The disproportionately high frequency of trauma among PLH and its negative impact on health outcomes and quality of life highlight the need for HIV management to integrate trauma informed care (TIC).

The syndemic relationship between trauma and substance abuse has encouraged SAMHSA to develop a trauma-informed approach to care that focuses on four core objectives; **realizing** the impact of trauma, **recognizing** signs and symptoms, **responding** by incorporating trauma care with medical care, and **resisting** re-traumatization [1, 60]. Trauma and HIV are also syndemic, and therefore require an integrated care approach [3]. A group of researchers examined HIV-infected trauma survivors and found that coping effectiveness training (CET) was associated with reduction in perceived stress, lower levels of distress, and improved adherence to treatment [6, 65]. In other studies, researchers associated TIC practices with reductions in barriers to HIV care engagement, improvement in the sexual health of HIV-infected patients

through improved mental health, prevention of additional IPV experiences and substance abuse, and reduction in sexual risk behaviors and STIs [62-64]. Thus, there is growing support for integration of TIC into HIV services, but the evidence base supporting how to best implement trauma-informed HIV care needs to be widened.

Critical to implementing large scale organizational change, such as TIC, in HIV clinics is an understanding of the perceptions of the multiple stakeholders (i.e. patients, care providers, administrators). While patient-perceived barriers to enrollment, retention and engagement in care have been well categorized in the literature, provider and staff perceived barriers to providing HIV care remain largely undescribed. Individuals who provide HIV care are often the sole medical providers for PLH, which presents unique challenges to providing holistic, comprehensive medical care. One study analyzing an access-to-care intervention, Positive Charge, assessed provider/staff barriers and facilitators to implementation and provided critical insight about barriers to care provision including environmental factors, collaboration, staffing, and, role confusion [67]. Other studies demonstrate that engaging providers and staff provides critical insight on how to increase clinic efficiency, save time, and enhance employee retention and satisfaction[78]. Some have shown that using employee feedback can enhance their quality of work, the trust they have in their workplace, and their sense of team membership [78]. Thus, identifying provider/staff perceived facilitators and barriers to providing care is crucial in creating organizational change, as providers and staff are key adopters and implementers and also bring in-depth, longstanding, understanding of the needs, strengths, and limitations of patients and the clinic.

Creating Cultures of Trauma Informed Care (CCTIC) is a self-assessment and planning protocol that is the "gold standard" designed to assist clinics in transitioning to TIC. Fallot *et al* created this document to provide consistent guidelines for programs and organizations interested in incorporating trauma-informed modification in to their services, but to our knowledge, it has not yet been used in HIV care settings [61]. This study aims to explore the perspectives of staff/providers about the current level of TIC provided at a large, urban HIV treatment center that serves a largely uninsured, low-socioeconomic population in the southern United States (US). Furthermore, we aim to extract the barriers and facilitators inhibiting provision of TIC to all patients receiving care at this treatment center as described by staff/providers. In doing so, this study hopes to inform public health efforts to integrate trauma informed care into HIV treatment center operations by providing potential strategies which the treatment center can adopt to provide more holistic TIC to PLH and serve as a model for other HIV care centers intending to do the same.

2.3 Methodology

Participants

The primary sampling frame includes staffs, providers representing on-site medical, family clinic, pediatrics, transition center, treatment and holding, center for wellbeing, registration and patient access, education, pastoral and palliative care, dental, colposcopy and social services (Appendix 1). All consenting treatment center providers and staff working at the clinic are deemed eligible to participate in this study.

Study Design

We applied a mixed-method research design, conducting quantitative and qualitative assessments simultaneously to supplement in-depth understanding of quantitative data captured. Data was collected between March 2017 and January 2018 at a large, urban HIV treatment center that serves a largely uninsured, low-socioeconomic population in the southern US. The treatment center (TC) is one of the largest Ryan-White funded clinics serving over 5000 people living with HIV (PLH) and is staffed by 180 individuals with expertise in HIV. The center's providers and staff were invited to participate in Trauma informed care (TIC) semi-structure self-assessment online survey (Appendix 2) and TIC guided in-person in-depth interviews (Appendix 3). Survey gizmo was utilized for online self-assessment survey administration while research assistants (MPH graduate candidates), who were CITI-certified and trained by a local gender-based violence support NGO, conducted in-depth interviews. Emory University Internal Review Board approved this research.

Sampling and Recruitment

In line with TIC assessment protocols, prior to the initiation of any recruitment activities, study PI's provided presentations to stakeholder i.e. key TC staff and providers, discussing the purpose and value of the study. Purposive sampling method employing flyers, direct emails and snowballing was utilized to identify TC staff and providers. Classification of an employee as staff or provider was predefined prior to enrollment based on clinic duties and title. Staff include individuals who interact directly with patients but provide supportive care (i.e. patient access representatives), while providers are defined as individuals who provide/direct patient medical care (i.e. physicians).

Eligible and consenting staff and providers had the option to participate in the online TIC self-assessment, participate in an in-depth TIC guided interview, or both. All participants were reimbursed $25 for completing online survey assessment and $50 for completing an in-depth interview.

Measures

Semi Structured Self-Assessment Survey

The TIC assessment tool used for this online self-assessment was adapted from "Creating Cultures of Trauma-Informed Care (CCTIC): A Self-Assessment and Planning Protocol" which is the "gold standard" protocol for transitioning to TIC (Appendix 2). The assessment tools with versions for providers, staff and patients were adapted to include relevant resources available at the TC by Kalokhe (PI) and Camacho-Gonzalez (Co-I), both HIV physicians at the TC, Sales (PI) and Swartzendruber (Co-I), both behavioral scientists, and local TIC experts. Research staff assisted in this process by editing for readability and language level. The final self-assessment tools therefor assessed and addressed items (i.e. Needs, resources and barriers to the development of TIC strategies) relevant to the stakeholder answering the assessment (e.g., patient or staff/provider) with response options ranging from strongly disagree to strongly agree. Each item indicator on the assessment tool was pertinent to the aforementioned 8 SAMSHA identified TIC domains: i) Training and Education, ii) Work Force Development, iii) Patient Engagement and Involvement, iv) Cross Sector Collaboration, v) Physical Environment, vi) Open and Respectful Communication Toward Patients, vii) Trauma Screening and Follow Up, and viii) Offering Services and Trauma-Specific Interventions. Although the TIC self-assessments are quantitative, open-ended questions were included and the end of each assessment domain to gain a more in-depth understanding of participant perspectives.

In-depth Interviews

In-person, one-on-one, in-depth interviews were audio recorded, lasting anywhere from 30 to 60 min, and transcribed verbatim. The interview guide was adapted from materials provided in the CCTIC by the study team. The in-depth interviews conducted with staff/providers provided an in-depth understanding of ways in which trauma informed services are practiced at the TC and specifics related to trauma.

Data Analysis

Semi Structured Self-Assessment Survey

To help visual patterns on each indicator of TIC and TIC related items, a 4 point Likert scale (0-3) was assigned to all responses (i.e. strongly disagree=0, disagree=1, agree=2, strongly agree=3). The average for each item was then calculated (excluding the response, "I don't know). A mean score of >2.0 indicated perceived presence of a service or activity, a mean score between ≥1.4 and ≤2.0, indicated that a service or activity was in "need of improvement," and an average of <1.4 indicates the perceived absence of a service or activity.

Qualitative Data – In-depth Interviews

All interviews were digitally recorded and professionally transcribed by Verbalink. Qualitative data were analyzed using NVivo qualitative software and thematic analyses. Three members of the authorship team (MPH graduate candidates) independently reviewed 20% of transcripts, which they used to generate preliminary codes and code definitions using inductive and deductive methods. In addition, with frequent meetings among coders, primary codes representing major topics and secondary codes representing recurring topics within topics were established. Then, each coder coded an additional 20% of the data, inter-coder agreement was calculated to compare coding agreement (Cohan's Kappa Score = .6361) and conflicts were resolved by consensus between the three coders. All codes were then compiled and developed into a codebook for analysis (Appendix 4). As new codes emerge they were continuously added to the final codebook. Each coder was then responsible for coding approximately 33% of transcripts, and the final codes were merged to create one complete file, which includes all coded sections for all interviews.

2.4 Results

This section summarizes the quantitative results and open-ended data directly derived from the semi structures survey tool, as well as the qualitative contextual data from the in-depth-interviews on facilitators and barriers of TIC in an HIV setting in eight key TIC domains: i) Training and Education, ii) Work Force Development, iii) Patient Engagement and Involvement, iv) Cross Sector Collaboration, v) Physical Environment, vi) Open and Respectful Communication Toward Patients, vii) Trauma Screening and Follow Up, and viii) Offering Services and Trauma-Specific Interventions. Each section first presents the summary survey data and then the qualitative contextual data on barriers and facilitators.

Participants

A total of 50 clinic employees were recruited between March and August 2017, to complete 31 TIC self-assessment surveys and 19 in-depth interviews. This study included nine clinics/departments all of which are housed at the same location; 1) Main Clinic, 2) Family Clinic, 3) Pediatrics/Adolescent Clinic, 4) Transition Clinic, 5) Center for Wellbeing, 6) Education, 7) Pastoral and Palliative Care, 8) Colposcopy, and 9) Social Services (Table 1). A total of 25 staff and 25 providers provided data for this study (Table 1). Staff participants included: social workers, care resource coordinators, health educators, nurses, translators, patient access representatives, and religious services, while providers included physicians, nurse practitioners, and other advanced practice providers (APP), serving both adult and pediatric populations.

Table 1: Characteristics of study participants stratified by clinic/department (n=50). *Provider participants included physicians, nurse practitioners, and other advanced practice providers (APP). Staff make up includes job titles; social worker, care resource coordinator, health educator, nurse, translator, patient access representative, and religious services. Both groups serve both adult and pediatric populations dependent on their department assignment.*

Clinic/ Department Breakdown	Survey (n=31)		In-depth interviews (n=19)	
	Providers (n=16)	Staff (n=15)	Providers (n=9)	Staff (n=10)
Main clinic	7	3	3	1
Family clinic	3	1	3	1
Pediatrics/Adolescent Clinic	4	3	1	2
Transition Center	0	0	0	3
Center for Wellbeing	1	2	1	1
Education (Peer counselors, health educators, intake RN)	0	2	0	0
Pastoral and palliative care	0	1	0	1
Colposcopy/endoscopy	1	0	1	0
Social services (Care resource coordinators – AKA case managers, social workers, patient navigators)	0	3	0	1
Total	16	15	9	10

Trauma Training and Education

Table 2: TIC assessment survey items evaluating trauma training and education. *Average Likert Scores are presented for each question showing a comparison between providers, staff, and the combined averaged of the two groups. A mean score of >2.0 indicates perceived presence of a service or activity, a mean score between ≥1.4 and ≤2.0, indicates that a service or activity is in need of improvement, and an average of <1.4 indicates the perceived absence of a service or activity.*

Staff (including providers) at all levels of the treatment center receive training and education on the following topics:	**Provider (n=14) Avg. Likert Scores**	**Staff (n=17) Avg. Likert Scores**	**Combined Avg. Likert Score**
What traumatic stress is	0.9	1.6	1.3
What domestic violence or intimate partner violence is	1.1	1.6	1.3
Factors that increase risk of trauma	1.0	1.6	1.3
How traumatic stress affects the brain and body.	0.8	1.6	1.2
Symptoms and signs of trauma	1.2	1.7	1.4
How to effectively screen or ask patients about different types of trauma	0.8	1.8	1.3
The relationship between mental health and trauma	1.2	1.8	1.5
The relationship between substance abuse and trauma	1.3	1.9	1.6
The relationship between homelessness and trauma	1.2	1.9	1.6
The relationship between HIV and trauma	1.2	1.9	1.6
The negative effects of trauma on the mental and physical health of individuals of all ages	1.3	1.8	1.6
The relationship between childhood trauma and adult re-victimization (e.g. domestic violence, sexual assault).	0.9	1.6	1.3
Working with people whose background differs from their own	1.9	2.3	2.1
Cultural differences in how people understand and respond to trauma.	1.2	1.8	1.5
Risk for re-traumatization of victims of violence by staff and peers.	0.8	1.6	1.2
How working with trauma survivors impacts staff.	0.9	1.8	1.4
How to help patients identify triggers (i.e. reminders of dangerous or frightening things that have happened in the past)	0.9	1.7	1.3
How to help patients manage their feelings (e.g. helplessness, rage, sadness, terror)	0.6	1.9	1.6
De-escalation strategies (i.e. ways to help people to calm down before reaching the point of crisis)	1.3	1.9	1.6
How to develop safety and crisis prevention plans.	1.2	1.9	1.6
Informed consent and confidentiality	2.2	2.2	2.2
What is asked in the intake assessment	1.4	2.1	1.8
How to establish and maintain healthy professional boundaries.	1.2	2.1	1.7

Semi-Structured Trauma Informed Care Survey Self-Assessment Results

Twenty-three survey items were used to assess the treatment center's ability to provide clinic-wide training and education. The combined Likert averages showed that providers and staff scored <1.4 on 8/23 items. These include training and education in topics related to traumatic stress (combined mean score 1.3), domestic violence or IPV (combined mean score 1.3), factors that increase risk of trauma (combined mean score 1.3) and the relationship between traumatic stress and the brain and body (combined mean score 1.2). They also reported not receive training in the relationship between childhood trauma and adult re-victimization (combined mean score 1.3), the risk for re-traumatization of survivors of violence by staff and peers (combined mean score 1.2), how to effectively screen or ask patients about different types of trauma (combined mean score 1.3), and how to help patients identify triggers (combined mean score 1.3). Center strengths included provision of training in obtaining informed consent and maintaining confidentiality (mean Likert score of 2.2) and working with people of a different background (mean Likert score 2.1) (Table 2).

Providers expressed more concern with training and education relative to staff, as they had an average Likert score of <1.4 on 20/23 survey items and ≤2.0 on 22/23 items, whereas staff had mean scores of <1.4 on 0/23 items and ≤2.0 on 19/23 items (Table 2).

Survey comments suggested that many staff and providers believe there is room for comprehensive training and education related to trauma in HIV patients, it was noted that this training would be especially helpful for those who have direct patient contact and are qualified to provide such care and referrals. In the open-ended response section, a provider wrote, *"I think more training would be good, however, there would be only so much [that] staff outside of medical providers and mental health staff with direct patient contact could do with it. Not all support staff are qualified, nor will their positions allow for spending that much time with patients that exhibit indications or trauma, especially if there are no visible indications."*

Qualitative In-depth Interview Results

Barriers to Providing Training and Education

Participants described training and education as a beneficial practice that should be increased throughout the treatment center. During interviews, staff expressed concern with execution of some of the prior trainings facilitated by the treatment center or associated organizations. This included having poor facilitators who were unable to engage the audience in a meaningful way.

> *"it was just one particular agency that came in and it was a cultural training, but the people that they had in place weren't necessarily presenters. And so, that kind of made the (laughs) the*

> *informa…it just, it just could have been executed better. The information was great, but the execution, wasn't, was poor."* [Staff, Center for Wellbeing]

Time relevance was also noted as a barrier to prior training. Staff identified the need for trainings to be relevant to current population needs and for the treatment center to be equipped to start enacting the changes suggested by the training immediately after completion.

> *"We had a training. But the training was when we first started. Then we didn't have the tool to do the job and it took us two months to get the tool to do the job, that we had trained for two months ago. So, no we're like, ok, we have to go back and kind of"* [Staff, Social Services]

An additional barrier to center-wide training is the center's employee makeup, wherein some staff and providers are employees of the health care system and others of a local university. This creates a challenge as the healthcare system employees are required to attend trainings that the university employees are not. Providers even explained that some individuals are required to pay for trainings and that there are not many onsite trainings that they can attend.

> *"There's a lot of trainings that [healthcare system] offers, but I'm not a [healthcare system] employee, I'm an [University] employee, so [University], _____ and other people may not get a lot, especially the procedural trainings. Like, you find out when you find out. Um, and that's not so great."* [Provider, Pediatric Clinic]

When prompted to describe barriers to providing clinic-wide training, providers explained that those leading the sessions need to know how to adjust their material to reach all levels of education. Additionally, not all staff and providers are available every day making it challenging to plan a training or education session that will capture all of the staff and providers that need to be in attendance.

> *"Uh, most of the advanced practice providers like [healthcare system] staff are unable to attend but the physicians are kind of either here or not – or not here either. You know, they may be on service. They may be out in the conference."* [Provider, Main Clinic]

Facilitators of Providing Training and Education

Participants described trainings that they have had on other topics and identified the elements which they believed contributed to the success of those training sessions. Both providers and staff discussed the importance of having topics that are relevant to a need that they can identify in their patients. Providing research on the relevance of a topic to their population, and how the training will help them manage patients and see health outcomes was the most reported facilitator. Time is a valuable entity at this treatment center, therefore staff and providers highlighted the need for trainings to be provided by individuals who are well prepared, knowledgeable and ready to present concisely.

> *"Because they brought top-notch person. They brought like somebody who is very knowledgeable – who is like, um, an authority on his field. And he was very effective"* [Provider, Family Clinic]

Lastly, staff explained that the current system for providing staff updates or training consists of monthly meetings, which occur in two timeslots to allow for the entire staff to have an opportunity to participate. This system is a facilitator of the training process and one that could be extended to encompass even more staff.

> *"So they actually break up our trainings up into when there's a mass training they actually break us up into letters or there may be sign-up days and sign-up times, but we uh do have that that type of training where they actually assign us um different cases. Or, I mean, different trainings."* [Staff, Pediatric Clinic]

Work Force Development: Staff Supervision, Support, and Self Care

Table 3: TIC assessment survey items evaluating work force development. *Average Likert Scores are presented for each question showing a comparison between providers, staff, and the combined averaged of the two groups. A mean score of >2.0 indicates perceived presence of a service or activity, a mean score between ≥1.4 and ≤2.0, indicates that a service or activity is in need of improvement, and an average of <1.4 indicates the perceived absence of a service or activity.*

	Providers (n=14) Avg. Likert Score	Staff (n=17) Avg. Likert Score	Combined Avg. Likert Score
Staff members have regular team meetings.	2.3	2.5	2.4
Topics related to trauma are addressed in team meetings.	1.2	1.6	1.5
Topics related to self-care are addressed in team meetings (i.e. vicarious trauma, burn-out, stress-reducing strategies)	1.1	1.8	1.5
Self-care is encouraged and supported with policy and practice at the treatment center.	1.2	2.0	1.7
Staff members meet with their supervisor/director regularly.	1.6	1.4	1.5
Staff members receive individual supervision from someone who is trained in understanding trauma.	0.7	1.7	1.2
Part of staff's time with their supervisor/director is used to help staff members understand their own stress reactions.	0.7	1.6	1.2
Part of the staff's time with their supervisor/director is used to help staff members understand how their stress reactions impact their work with patients.	0.8	1.9	1.4
The treatment center helps staff members debrief after a crisis.	1.3	1.7	1.5
The treatment center has a formal system for reviewing staff performance.	1.9	2.5	2.3
The treatment center provides opportunities for on-going staff evaluation of the program.	1.3	2.3	1.8
Staff have adequate support in dealing with challenging client situations.	1.5	2.1	1.8
Supervisors have an understanding of the emotional impact (burnout, vicarious trauma, and compassion fatigue) associated with their work.	1.5	1.7	1.7
The treatment center provides opportunities for staff input into program practices.	1.3	1.8	1.5
The actions that follow (solicitation of input) demonstrate that staff have been heard.	0.7	1.8	1.3
Supervisors communicate that staff members' opinions are valued even if they are not always implemented.	1.2	2.1	1.7
Outside consultants with expertise in trauma provide on-going education and consultation.	0.5	1.9	1.3

Semi-Structured Trauma Informed Care Survey Self-Assessment Results

Work force development was evaluated using 17 indicators. The combined Likert averages showed that participants scored <1.4 on 4/17 items and >2.0 on 2/17 items. Center strengths include hosting regular team meetings (combined mean score of 2.4) as well as having a formal system for reviewing staff performance (combined mean score of 2.3). Identified gaps include insufficient individual supervision from someone who is trained in trauma (combined mean score of 1.2), lack of ongoing education for trauma using outside consultants (combined mean score 1.3), perception of not "being heard" after providing feedback about the workplace (combined mean score 1.3), and lack of dedicated time with supervisor learning to understand personal stress reactions (combined mean score of 1.2).

Providers expressed more concern with work force development relative to staff, as they had an average Likert score of <1.4 on 12/17 survey items and ≤2.0 on 1/17 items, whereas staff had mean scores of <1.4 on 0/17 items and ≤2.0 on 5/17 items (Table 3).

Participants expressed their support of additional work force development measures, highlighting self-care training as a desired staff program. One participant used the open-ended section to discuss the difficult balance between managing challenging patients, debriefing time, and health systems demand. ***"****Staff support around dealing with difficult patients is lacking wholly. As a supervisor myself, I do my best to support my fellow provider's, but it has been increasingly difficult to protect time for debriefing/self-care sessions due to the demands of the health system…. The health system (and healthcare in general these days) lacks the flexibility to be able to accommodate the needs of patients who live extremely complex lives and providers who assist such patients to navigate in an increasingly complex healthcare system."*

Qualitative In-depth Interview Results

Barriers of Work Force Development: Employee Feedback, and Support

It has been mentioned that an annual employee engagement survey is completed by the health care system, however a barrier to completing this effectively is that many of their providers who work at this treatment center are not employees of the health care system, but employees of a local university. This excludes them from the opportunity to complete this annual survey and leaves out potentially informative sections of feedback.

> *"Here's the problem. The people surveyed are [health care system] employees. So, all of the providers, essentially, or [University Hospital] or something else. So, if your nurses, like I said, or [health care system] staff, you will probably fill this out annually maybe, because I know they have a survey. I know I filled one out for [University Hospital], but I don't fill one out for [Health Care System]. And the joke is I'm here 40 hours a week. I go to [University Hospital] for meetings, but that's not where I work. So interesting enough, they don't ask about 30 to 40 percent of the staff here and they're the staff that has*

> *the most direct contact with patients in terms of providing the clinical service they're billing for."* [Provider, Pediatrics]

One barrier that exist in this clinic is a divisiveness among employees in different departments and roles which is further fueled by frustration.

> *"It's like administrators against providers… you know, doctors against mid-levels, nurses against doctors, social workers against everybody, I – you know, there's a lot – there's a lot of divisiveness that I've seen. And – and – and I think it comes out of frustration."* [Staff, Transition Clinic]

In addition to this divisiveness, staff and providers explained that there is a disconnect between administrators and patient facing employees, which employees sometimes interpret as their concerns are not being valued.

> *But I – but I would say management here doesn't necessarily think things are what they really are. Like, they might have –I would say there's a disconnect, like some rose-colored glasses.* [Staff, Education]

This clinic is understaffed, and serving a challenging population cause some employees to feel overworked and neglected by admin and supervisory staff creating a barrier to supporting the workforce of this treatment center.

> *"… asking us questions in a time where morale is pretty low and I think that NPs and PAs don't really feel like they have a voice and they're more overworked than normal because we're down some staff. So, um, I think that historically that's probably been an issue here."* [Provider]

<u>*Facilitators of Work Force Development: Employee Feedback and Support*</u>

Facilitators of employee engagement identified by staff included the annual employee satisfaction survey produced by the healthcare system which allows employees to evaluate themselves, their work environment and their supervisors.

> *"We do an annual, um, an annual employee satisfaction survey. And we have to do that uh it's a series of questions that the whole [health care system] has to answer. And, that's how they get the feedback on how we feel about training and environment and supervisors, and workload. All that kind of stuff."* [Staff, Care Resource Coordinator]

Some staff explained that their department supervisors complete one on one interviews with staff on a monthly basis to get feedback and identify needs of problems that their staff are facing.

> *"Now, they also have, um – I am interviewed once a month by my boss, who sits down and says to me, "How are things going for you?" You know? "Do you have the supplies that you need? Do you, um – do you – what do you – do you have the tools that you need to do a better job? What complaint do you have? What are some things that are going well? What are some things that aren't going" – every month.* [Staff]

Another facilitator of employee feedback is the monthly provider meeting in which physicians or advanced practice providers (APP) discuss difficult clinical cases and invite staff if relevant. Through this platform providers can express their concerns and comments to supervisors and clinic administration.

> *"And then we do have this provider meeting that is geared towards MD and advance practice providers but we'll invite nurses and definitely accommodate schedules with some of the nurses depending on what the topic is. Um, and sometimes that can be an avenue by which providers can kind of air their grievances or um comment on certain aspects on the way clinic is run um, and then for women's clinic [family clinic] we have a um we have a monthly meeting that's specifically for our clinic but it involves all staff and providers across the spectrum, um and… sometimes some of those topics come or just put on the agenda, and sometimes those topics come up during that meeting."* [Provider, Family Clinic]

Patient Engagement and Involvement

Table 4: TIC assessment survey items evaluating patient engagement and involvement. *Average Likert Scores are presented for each question showing a comparison between providers, staff, and the combined averaged of the two groups. A mean score of >2.0 indicates perceived presence of a service or activity, a mean score between ≥1.4 and ≤2.0, indicates that a service or activity is in need of improvement, and an average of <1.4 indicates the perceived absence of a service or activity.*

	Providers (n=14) Avg. Likert Score	Staff (n=17) Avg. Likert Score	Combined Avg. Likert Score
The organization reviews rules, rights, and grievance procedures with patients regularly.	1.3	2.2	1.9
Patients are informed about how the treatment center responds to personal crises (i.e. suicidal statements, violent behavior and mandatory reports).	1.3	2.1	1.8
Patients' rights are posted in places that are visible (i.e. room checks, grievance policies, mandatory reporting rules).	1.3	2.4	2
Materials are posted about traumatic stress (i.e. what it is, how it impacts people, and available trauma-specifics resources).	0.8	1.9	1.4
The treatment center has regularly scheduled procedures and opportunities for patients to provide input	1.5	2.5	2.1
The treatment center has effective policies in place to handle any changes in schedules.	1.5	2.3	1.9
The treatment center is flexible with procedures if needed, based on individual patient circumstances.	1.8	2.4	2.1
Patients are given opportunities to evaluate the treatment center and offer their suggestions for improvement in anonymous and/or confidential ways (i.e. suggestion boxes, regular satisfaction surveys, meetings focused on necessary improvements, etc.)	1.8	2.5	2.2
The treatment center recruits' patients to serve in an advisory capacity.	2.1	2.5	2.3
Patients are invited to share their thoughts, ideas and experiences with the treatment center.	1.9	2.5	2.3
Patients have opportunities to become involved in the development of treatment center activities.	1.9	2.3	2.2
Patients are involved in providing services (i.e. peer-run support groups, educational, and therapeutic groups.)	1.9	2.4	2.2

Semi-Structured Trauma Informed Care Survey Self-Assessment Results

Twelve survey items were used to evaluate patient engagement and involvement in treatment center activities and care. The combined Likert averages showed that participants did not identify any major center weaknesses, as no Likert averages fell under 1.4. Participants identified 7 strengths related to patient engagement (combined mean averages >2 on 7/12 items). These includes a perception that the treatment center recruit's patients to serve in an advisory capacity (combined mean score 2.3), there are regular

scheduled opportunities for patients to provide input (combined mean score 2.1), confidential opportunities exist for patients to evaluate and suggest improvements (combined mean score 2.2), patients have an opportunity to become involved in the development of treatment center activities (combined mean score 2.2) and are involved in providing services (combined mean score 2.2). Lastly, staff and providers perceive that there is flexibility of the center to adjust procedures based on patient circumstances (combined mean score 2.1) (Table 4).

Staff perceived presence of almost all activities related to patient engagement and involvement scoring >2 on 11/12 items while providers perceived more gaps in these activities scoring >2 on only 1/12 items, and <1.4 on 4/12 survey items (Table 4). Remainder of staff and provider items fell in the "needs improvement" range, between ≥1.4 and ≤2.0.

In the open-ended response sections, participants added that the treatment center could benefit from being more patient-participatory, instead of the current standard where the center drives change, and patients are expected to follow. It was also noted that peer interventions would be a great addition to the treatment center, providing an opportunity to include better include patients in the care of their peers and encourage more peer support among groups. After analyzing the qualitative data, no information related barriers and facilitators of this domain were reported, thus we chose to only highlight the employee assessment from the semi-structured trauma informed care survey.

Cross Sector Collaboration

Table 5: TIC assessment survey items evaluating cross sector collaboration. *Average* Likert Scores are presented for each question showing a comparison between providers, staff, and the combined averaged of the two groups. A mean score of >2.0 indicates perceived presence of a service or activity, a mean score between ≥1.4 and ≤2.0, indicates that a service or activity is in need of improvement, and an average of <1.4 indicates the perceived absence of a service or activity.

	Providers (n=14) Avg. Likert Score	Staff (n=17) Avg. Likert Score	Combined Avg. Likert Score
Policies and procedures encourage providers and staff to have regular contact (with consent of the patient) with other treatment center providers who serve the same patient.	1.8	2.2	2.1
Care management that integrates substance abuse, mental health, and violence/trauma services is available.	2.1	2.3	2.2
Multi-disciplinary teams can be consulted to address service plan difficulties.	1.7	2.2	2
Staff can link patients to treatment center-based mental health services without difficulty.	2.1	2.3	2.2
Staff can link patients to treatment center-based substance abuse services without difficulty.	1.9	2.1	2
Staff can link patients to treatment center-based legal services without difficulty.	1.6	2.2	1.9
Staff can link patients to treatment center-based social work and case management services without difficulty.	1.6	2.2	2.1
Staff can link patients to treatment center-based organizations that provide housing and shelter without difficulty.	1.8	2.2	2
Staff can link patients to treatment center-based spiritual services without difficulty.	2.0	2.2	2.1
Staff can link patients with community-based domestic violence organizations and shelters without difficulty.	1.4	2.0	1.7
Staff can link patients with community-based domestic violence organizations and shelters without difficulty regardless of the patient's gender.	1.3	2.0	1.7
Staff can link patients with community-based domestic violence organizations and shelters without difficulty regardless of the patient's sexual orientation.	1.3	2.1	1.7
Staff can link patients and/or patients' caretakers with community-based organizations that provide support for children who have experienced trauma without difficulty.	1.4	2.2	1.9

Semi-Structured Trauma Informed Care Survey Self-Assessment Results

Cross sector collaboration was evaluated using 13 survey items. Combined Likert averages suggested that providers and staff perceived that 5/13 items were being adequately performed at the treatment center. This

included the presence of treatment center based mental health (combined mean score 2.2) and spiritual services (combined mean score 2.1) which are available, and staff can link patients to them without difficultly. There is a perceived presence of care management services that integrate substance abuse, mental health, and violence/trauma services at this treatment center (combined mean score 2.2). Policies and procedures encouraging providers to have contact with other treatment center-based providers who serve the same patients (combined mean score 2.1) and that staff can link patients to treatment center based social work and case management services without difficulty (combined mean score 2.1) (Table 5).

Staff perceived availability of all services and practices related to cross sector collaboration scoring a Likert average >2 on 13/13 survey items (Table 5). Providers were more critical of cross sector collaboration services scoring average Likert scores of >2 on 3/13 and <1.4 on 2/13 items. The remainder items assessed by providers fell in the needs improvement range, scoring between ≥1.4 and ≤2.0 on 8/13 survey items.

Open-ended responses suggested that many participants believe cross sector collaboration within the treatment center is a strong resource, but simultaneously, some voiced that connecting to community-based organization is an area in need of improvement. *"We could have more community-based organizations come to [Treatment Center] and talk about the care they provide, referral process etc. Some staff may not know that services are available to patients or how to access them. [Treatment Center] could also go to other agencies and do the same. We do a little of this, but not as much as we could.* An abundance of resources exists at this site, but some participants find that connecting patients to these resources can be challenging as the demanding health system and creates pressure to provide services but not effectively integrate them, *"We have very robust co-location of services (medical, case management, mental health) but admittedly could do much better integrating these services. This has been challenging in the current environment within the health system as the pressures to provide services overtakes the push to create more cross-sector collaboration with an emphasis on improved quality of care."*

Qualitative In-depth Interview Results

Barriers to Cross Sector Collaboration: Focusing on Internal Referrals

Participants discussed ordering and scheduling referrals at length and found that there is currently no set protocol explaining who should be completing the initial paperwork and scheduling of the referrals. Nurses and sometimes patients are responsible for scheduling their referral visits and participants stress this as a barrier. In addition to the barrier created by the inconsistency of the referral process, nurses are often too busy to complete these steps. For the referrals that require patients to call and schedule on their own, this process can be overwhelming and less likely to actually be complete.

> *"I think that, um, sometimes, you know, when the, um, referral forms are given to the patients thinking the patient can take it to wherever they need to go, P40 or wherever they need to go, um, I think that, um, sometimes, you know, we forget that although we work at this place, place is a lot bigger to those who are not here every day working, right?"* [Staff]

Too often staff and providers find themselves "winging it" when it comes to completing internal referrals because there are no standard operating procedures for how referrals should be conducted.

> *"I – to tell you the truth, I don't think there's a set process. Everything is like you wing it. Like when that happened, I would ask my colleagues, and they were the one who told me to call Mental Health and the Crisis Line. We don't have a formal process like where – to tell you what to do when such and such happens."* [Provider, Family Clinic]

Even though participants expressed the benefits of being a comprehensive clinic, some individuals find that there is a lack of knowledge of what services are performed in each department which creates a barrier to collaborating across departments. Coupled with the lack of clear procedures for internal referrals, unclear clinic services are another barrier to TIC.

> *They're not really sure, what the, the department does. And so then that make referrals that aren't' necessarily appropriate.* [Staff, Center for Well Being]

Compounding the issue related to unclear internal referral procedures, internal referrals are completed using two systems, either on a paper form which is time consuming, or using the EPIC medical record system. Participants find that this is a barrier for the referral process as it increases confusion and decreases the likelihood that the task will be completed properly.

> *"Um, okay. So we – they do two types of referrals, and some of the practitioners, everybody is not on the same page, I mean, sorry, the providers. Everybody's not on the same page. We've got half that do, uh, written referrals and we've got the other half that do referrals in, uh, um, system, in Epic."* [Staff]

For some services, patients can wait up to 6 months for appointments which is a barrier to retaining individuals in care. This is especially burdensome for patients in need of mental health care and would inhibit the treatment center from providing adequate TIC.

> *"If they don't have an appointment for like several months out, or the appointment gets canceled then gets rescheduled and then it's like six months out, and then, the patient's not really getting routine mental health follow-up."* [Provider, Main Clinic]

Participants explained that currently there is no system to catch missed appointments, including referral appointments, which means that the providers will not know that a patient missed a referral appointment until the patients come back in to the clinic. To the knowledge of many participants, there is also no system to remind patients of upcoming appointments which is another barrier to retaining them in care as they may have long waits prior to appointments, and more time to forget their schedule.

> *"Um, there is not, like, a system in place that's a clear procedure for how internal referrals happen or anything to catch if um you know forget about the missed appointments but for whatever reason the referral gets taken out of the stack or the note doesn't make it to the scheduler to schedule it or the scheduler is doing something else and forgets or the patient checks out after the scheduler left…there's no system to catch those. Um, those that are just not ever scheduled, to my knowledge."* [Provider, Family Clinic]

An overall lack of communication between staff and departments is noted by participants as a barrier to providing comprehensive services to patients at this treatment center.

> *"Communication is an issue, I think, here. And I get really cranky about it because there is, what, four floors – hello? You know?"* [Staff]

Facilitators of Cross Sector Collaboration: Focusing on Internal Referrals

Services including but not limited to medical care, mental health, dental, housing assistance, legal assistance, and nutritional services are provided under one roof at this treatment center. Participants expressed that this comprehensive clinic structure is a facilitator of cross sector collaboration making it easier for patients to navigate their healthcare and easier to facilitate internal referrals.

> *"Um, I mean, the um, great thing about this place is we have a lot of um, we have a lot of referral services within this building and in most doctor's offices that's not available, so um so I think in that way the adult, uh, clinic, is a huge advantage in the process works actually much more smoothly than a lot of places because there's so many options for internal referrals. Um, and I think that both patients and staff see the fact that there's all these services located in this building as an advantage, um …"* [Provider, Family Clinic]

Relationships among staff and providers facilitate internal referrals by creating a space where a warm hand off or direct contact via phone or email can be made between providers who are familiar with one another. This ensures that patients are seen in a timely manner.

> *"Having a good relationship with the people that we're referring people to. Uh, it helps when I call and it's like "Hey Stacy" They already know I'm about to bring somebody up and for what. So having that relationship with the internal people here is great."* [Staff, Social Services]

Some individuals also believe that warm hand offs allow the patient to be more comfortable when moving from one provider to the next. They can transfer the trust they have with the patient to the next provider to because they were able to facilitate the introduction.

> *"Yeah. What I do is um I make sure that, that they're comfortable and they know what to expect and then I actually walk them to that provider so that way it's like a warm hand-off, um this is a good person, they're gonna listen to you, um you don't have to worry about judgment, cause a lot of my you know guys are MSM, so they talk a lot about their sexual abuse or types of sex they have, and so uh sometimes so I have to make sure that even the provider is comfortable with um having this dialogue with the client."* [Staff, Pediatric Clinic]

Participants explain that procedures which allow the internal referral to be made upon discharge of the patient are more likely to result in a successful referral.

> *"I think the biggest thing is being able to get the appointment upon discharge, um, prior to leaving the clinic. Because it's fresh on their mind, you know, they can – they can get the appointment that – that works for them. Right? Because they can talk to a live person to say, "Does this time work? Yes? No? Whatever?" versus after the fact, which is oftentimes, just made for the patient and then the patient's informed of it, which may or may not work."* [Provider, Main Clinic]

Referral paperwork which can be completed electronically using the medical record system are cited as a facilitator of successful referrals. This method removes some burden off of staff and providers, being easier to remember, less cumbersome to complete. A provider expressed belief that this process even improves the success rate of patients linking to the referred services.

> *"I think that for the, um, the referrals that we can make electronically in Epic, that's – that's been a huge burden off of the providers, the primary care providers in that, you know, we don't have to go get another form to fill out in order to make the appointment. It's – I feel like it's definitely improved the, um, success rate of patients linking to these services versus paper form because with the paper form, some – some of them will just collect the forms and then schedule after the fact and call the patients and then you run the risk of, you know, not having an accurate phone number or patients having changed phone numbers. And so it's kind of allowed us to just go ahead and make the appointment also which, you know, benefits our patients."* [Provider, Main Clinic]

Participants explained that facilitating successful referrals at this treatment center requires providers and staff to play an active role in the full process, from initiating the appointment to scheduling to ensuring the patient is reminded of the appointment and shows up. This is especially true for referrals that require the patient to schedule them on their own after they leave the clinic. Staff and providers who take an active role in patient care are assets to this treatment center and can be considered facilitators of successful cross sector collaboration.

> *"Or, if they don't make it, then the provider actually comes to me and says ok the client didn't make it so then I call the client well what happened? Oh I didn't have bus fare, ok, well let's not, let's try to reschedule and I'll make sure that you have means to get to this appointment. So, I think that the referral proves here works good because it's all in one area."* [Staff, Pediatric Clinic]

Physical Environment

Table 6: TIC assessment survey items evaluating physical environment. *Average Likert Scores are presented for each question showing a comparison between providers, staff, and the combined averaged of the two groups. A mean score of >2.0 indicates perceived presence of a service or activity, a mean score between ≥1.4 and ≤2.0, indicates that a service or activity is in need of improvement, and an average of <1.4 indicates the perceived absence of a service or activity.*

	Providers (n=14) Avg. Likert Score	Staff (n=17) Avg. Likert Score	Combined Avg. Likert Score
The treatment facility has a security system (i.e. alarm system).	1.9	2.1	2
Treatment center staff monitors who is coming in and out of the program.	1.5	1.9	1.7
Staff members ask patients for their definitions of physical safety.	0.9	1.5	1.2
The environment outside the treatment center is well lit.	1.6	2.1	1.9
The common areas within the organization are well lit.	2.1	2.4	2.2
Bathrooms are well lit.	2.2	2.3	2.2
Staff/Patients can lock bathroom doors.	2.1	2.4	2.3
Staff/Patients have access to private, locked spaces for their belongings.	1.6	2.2	1.9
Procedures are in place to protect both staff and patients if a perpetrator attempts to enter.	1.6	2.1	1.9
A quick response agreement is in place with local law enforcement should a perpetrator attempt to enter the treatment center.	1.7	2.1	2
Procedures that protect the confidentiality of current patient are in place for screening new admissions to determine whether they are perpetrators of current participants.	0.8	2.1	1.8
A policy is in place to deny admission to the perpetrator of a current patient and refer elsewhere.	0.7	1.8	1.5
Procedures are in place to assist a patient in accessing HIV care in another community if it is not safe for him/her to use treatment center services.	1.0	2.1	1.7
The treatment center incorporates child-friendly decorations and materials.	1.9	2.2	2.1
The treatment center provides a space for children to play.	2.2	2.4	2.3
The treatment center provides patients with opportunities to make suggestions about ways to improve/change the physical space.	1.4	1.9	1.6
Physical restraints are used only as an exception	2.4	1.8	2.1
Staff and other professionals do not talk about patients in common spaces.	1.7	2.1	1.9
Staff does not talk about patients outside of the treatment center unless at appropriate meetings.	1.9	2.5	2.2
Staff does not discuss the personal issues of one patient with another patient.	2.2	2.5	2.3
Limits of confidentiality, how records are kept, who has access to the information, and how information could be used to the patient's detriment are carefully explained to patients before information is collected.	1.8	2.6	2.3
Patients who have violated rules are approached in private.	1.9	1.9	1.9
There are private spaces for staff and patients to discuss personal issues.	2.3	2.5	2.4
Clinic waiting rooms are safe for patients.	1.3	2.2	1.8
Treatment center information is available in different languages.	1.6	2.1	1.9
Staff and patients are allowed to speak their native languages within the treatment center.	1.9	2.2	2.1
Staff shows acceptance for personal religious or spiritual practices.	1.8	2.3	2.1

Semi-Structured Trauma Informed Care Survey Self-Assessment Results

Twenty-seven survey items were used to evaluate the physical environment at this treatment center. Combined Likert averages showed that there is a perceived the presence of some activities scoring >2 on 6/27 items/activities. Most participants agreed that staff and patients can lock bathroom doors (combined mean score 2.3), and that common areas (combined mean score 2.3) and bathrooms (combined mean score 2.2) are well lit. Both staff and providers perceive a presence of confidentiality, supporting the notion that staff do not discuss personal issues of one patient with another (combined mean score 2.3) and that there are private spaces for staff and patients to discuss personal issues (combined mean score 2.4). The treatment center provides a space for children to play (combined mean score 2.3). Both staff and providers believe that 3 activities need improvement scoring between ≥1.4 and ≤2 on 3/27 items. Presence of one activity was reported absent, <1.4 on 1/27 items. Participants agreed that patients are not asked for their definitions of physical safety (combined mean score 1.2).

Staff scored >2 on 21/27 survey items and the remaining 6 fell in the "needs improvement" range, between ≥1.4 and ≤2. Providers scored >2 on 7/27 items and perceived an absence of 4 survey items scoring <1.4 on 4/27. The remainder 16 survey items scored by providers fell between ≥1.4 and ≤2, showing that providers perceive absence of services that could be improved.

Quantitative data would suggest that most participants are comfortable with the physical environment and the level of safety provided at this treatment center, however open-ended responses suggested that that there is more concern about safety than displayed in the survey data. One patient described a recent safety issue which highlighted a disregard for staff safety at this treatment center. *"There was a recent incident at [treatment center] which highlights the issue of safety in the waiting room and in clinic. A patient threatened another patient, had a tazor and then the patient was allowed to see their provider with closed doors (unbeknownst to her that this altercation at occurred with her patient in the lobby). This was scary to me because a patient was already escalated and then allowed to see a provider without her knowledge. The patient was subsequently arrested AFTER the clinic visit was completed. There is a disregard for staff safety. Additionally, this provider also found a loaded gun on her patient while conducting a physical exam as he rode MARTA and there was nowhere for him to store it while in clinic."*

Other participants expressed concern that the treatment center is often reacting to safety concerns instead of preventing them, which tends to be a result of wanting to prioritize access to care for patients who may not have many other care options. *"In the last year there have been initiatives to increase safety at* [Treatment Center]. *This was unfortunately a reactionary response to situations that arose that involved potential threats to safety of patients/staff.* [Treatment Center] *is the 'last stop' for many of our patients and are referred here when other facilities are no longer [able] to accommodate their needs due to complex*

medical or psychosocial issues. In that regard, we walk a finer line between safety and access to care than most other facilities do. We as a clinic prioritize access to care, and occasionally that can raise concerns."

After analyzing the qualitative data, no information related barriers and facilitators of this domain were reported, thus we chose to only highlight the employee assessment from the semi-structured trauma informed care survey.

Open and Respectful Communication Toward Patients

Table 7: TIC assessment survey items evaluating open and respectful communication toward patients. *Average Likert Scores are presented for each question showing a comparison between providers, staff, and the combined averaged of the two groups. A mean score of >2.0 indicates perceived presence of a service or activity, a mean score between ≥1.4 and ≤2.0, indicates that a service or activity is in need of improvement, and an average of <1.4 indicates the perceived absence of a service or activity.*

	Providers (n=14) Avg. Likert Score	Staff (n=17) Avg. Likert Score	Combined Avg. Likert Score
Staff members ask patients for their definitions of emotional safety.	1.1	2.1	1.6
Staff members ask patients what they need to feel emotionally safe at the treatment center.	1.0	1.9	1.5
Staff members practice motivational interviewing techniques with consumers (e.g. open-ended questions, affirmations, and reflective listening).	2.0	2.3	2.2
The treatment center uses "people first" language rather than labels (e.g. 'people who are experiencing homelessness' rather than 'homeless people').	1.2	2.3	1.9
Staff uses descriptive language rather than characterizing terms to describe patients (e.g. describing a person as 'having a hard time getting her needs met' rather than 'attention seeking').	1.4	2.3	1.9
Staff consistently explains examination procedures and asks patients permission before touching them.	1.9	2.5	2.3
Staff consistently take patients' trauma histories into consideration when performing pelvic, genital, and/or rectal examinations.	2.0	2.5	2.3
Staff consistently explains the plan of care to patients.	2.0	2.6	2.3
Staff consistently gives patients opportunities to ask questions about their health and care.	2.1	2.6	2.4
Staff consistently addresses patients' questions and concerns.	2.0	2.6	2.3

Semi-Structured Trauma Informed Care Survey Self-Assessment Results

Ten survey items were used to evaluate open and respectful communication at this treatment center. Combined Likert averages were >2 on 6/10 items. Staff and providers agreed that staff consistently give patients opportunities to ask questions about their health and care (combined mean score 2.4). There is also a perceived presence of activities related to staff members practicing motivational interviewing techniques with consumers (combined mean score 2.2) and consistently explaining the plan of care to patients (combined mean score 2.4). Combined scores suggest that both groups believe that staff consistently take patients' trauma histories into consideration when performing pelvic, genital, and/or rectal examinations (combined mean score 2.3) and that they consistently explain examination procedures and ask patients permission before touching them (combined mean score 2.3). Additionally, most participants believe that staff consistently address patients' questions and concerns (combined mean score 2.3).

Staff perceived the presence of 9/10 items described in the survey, demonstrated by mean scores of >2 on 9/10 questions. The remaining activity was ranked in the "needs improvement" range, scoring in the ≥1.4 and ≤2.0 on 1/10 survey items. Providers perceived a lack of 3 activities related to open and respectful communication scoring <1.4 on 3/10 survey items. Of the 10 items presented, providers scored in the "needs improvement" range, scoring in the ≥1.4 and ≤2.0 on 6/10 items.

After analyzing the qualitative data, no information related barriers and facilitators of this domain were reported, thus we chose to only highlight the employee assessment from the semi-structured trauma informed care survey.

Trauma Screening and Follow Up

Table 8: TIC assessment survey items evaluating trauma screening and follow up. *Average Likert Scores are presented for each question showing a comparison between providers, staff, and the combined averaged of the two groups. A mean score of >2.0 indicates perceived presence of a service or activity, a mean score between ≥1.4 and ≤2.0, indicates that a service or activity is in need of improvement, and an average of <1.4 indicates the perceived absence of a service or activity.*

	Providers (n=14) Avg. Likert Score	Staff (n=17) Avg. Likert Score	Combined Avg. Likert Score
Personal strengths.	1.3	2.1	1.8
Cultural background.	1.7	2.4	2.1
Social supports in the family and the community	2.1	2.4	2.3
Current level of danger from other people (e.g. restraining orders, history of domestic violence, threats from others).	2.2	2.3	2.0
History of physical, emotional, or sexual abuse and neglect as a child or adolescent	2	2.2	2.2
History of physical, emotional, or sexual abuse and neglect by an intimate partner/spouse	1.9	2.2	2.1
History of combat violence	1.1	2.3	1.9
History of experiencing other community-based violence	1.6	2.3	2.0
History of loss	1.5	2.3	2.0
History of homelessness	2.2	2.4	2.3
Trauma related to learning their HIV diagnosis	2.2	2.4	2.3
Previous head injury.	1.8	2.2	1.8
Quality of relationship with child or children (i.e. caregiver/child attachment)	1.5	2.4	2.0
Children's achievement of developmental tasks.	1.8	2.1	1.9
History of mental health issues.	2.4	2.5	2.4
History of substance abuse	2.4	2.5	2.4
History of physical health issues.	2.3	2.5	2.4
There are private, confidential spaces available to conduct intake assessments.	2.1	2.6	2.4
The treatment center informs patients about why these questions are being asked.	1.9	2.6	2.4
The treatment center informs patients about what will be shared with others and why.	1.7	2.5	2.2
Throughout the initial assessment process, the treatment center staff observes patients on how they are doing and responds appropriately (e.g., takes breaks).	2.0	2.4	2.3
The treatment center provides a translator for the assessment process if needed.	2.3	2.5	2.4
The intake results are shared with the patient's assigned HIV care provider	1.6	2.4	2.1
The patient's HIV care provider reviews the results of the initial intake with the patient.	1.2	2.5	1.8
Based on the intake assessment, patients are referred for specific services as necessary.	1.8	2.5	2.3
Re-assessments about trauma (i.e. violence, loss, homelessness) are done at least annually.	1.4	2.6	2.1
The treatment center seeks patient consent whenever it is necessary to speak with a new provider.	1.4	2.3	2.0
Staff collaborates with patients in setting their goals.	1.9	2.6	2.3
Patient goals are reviewed and updated regularly.	1.7	2.5	2.1
Before leaving the program, staff work with patients to develop a plan to address potential safety issues	1.3	2.4	1.9
Before leaving the program, staff work with patients to develop a plan to address future service needs related to trauma.	0.2	2.2	1.8

Semi-Structured Trauma Informed Care Survey Self-Assessment Results

Thirty-one survey questions were used to evaluate the level of trauma screening provided at this treatment center. The combined provider and staff mean scores suggested that trauma screening is occurring at this treatment center, but it needs improvement. Most of the mean scores were >2 (19 out of 31 questions), while the remaining 12 out of 31 questions fell in the higher end of the "needs improvement" section mean scores ranging from ≥1.4 to ≤2. Staff and providers reported that sufficient screening occurs to determine a patient's mental health, physical health, and substance abuse needs, all practices with combined mean score of 2.4. They agree that patients are asked about their social supports (mean score 2.1), about trauma related to learning about their HIV status (mean score 2.3), and their history of homelessness (mean score 2.3). Intake/screening assessments are completed in a confidential space and translators are available if needed (mean scores 2.4). Staff felt that the practices described in 31 survey questions were being performed at this treatment center scoring >2 on all 31 questions. Providers had a low mean score of <1.4 on four of the 31 survey items. They believe that the screening process does not inquire about patient's personal strengths (mean score 1.1) or their history of combat violence (mean score 1.4). When asked if providers are reviewing the results of the initial intake assessment with patients, providers had a mean score of 1.2 suggesting a perceived lack of this practice in this treatment center. The largest perceived gap in coverage, according to the providers, is that they do not work with patients to develop a plan to address potential safety issues (mean score 1.3), and future services needs related to trauma (mean score 0.2).

In the open-ended sections providers expressed concern that there are differences in the way trauma is handled throughout the clinic. "I believe that there are discrepancies on how this information is sought/handled within each clinic. Pediatrics is much more in tune with trauma informed care and performs a more thorough assessment of trauma/violence from a child protection perspective, but adult providers are not likely to specifically screen for these issues unless particularly triggered to do so."

Qualitative In-depth Interview Results

Participants explained that screening for histories of trauma at this treatment center is not occurring for all patients. The trauma screening that is occurring is done with no protocol which allows it to be completed at the discretion of providers, resulting in incomplete and inconsistent trauma screening.

> *"As of now, I can tell you I don't screen my patient. If they don't tell me that something happened since the last visit, I don't think I, um, would sit down and explore whether they are, uh, abused, or has domestic violence."* [Provider, Family Clinic]

Some participants also recognized the need for repeat screening of patients and explained that that is not something that currently happens at this clinic.

> *"I think some of the issues might be, um, for patients who've been here for a long time. Um, I don't know that the screening is repeated, um, often enough."* [Provider, Pediatric Clinic]

Interviewees described medical social workers and the mental health clinic, as two departments in the treatment center who do engage in trauma screening. It should be noted that not all patients who enter the clinic will receive mental health and medical social work services.

> *"But they do not ask about trauma at intake. But I have seen intake from the mental health and they do always ask history of childhood trauma"* [Provider, Main Clinic]

Barriers to Screening for Trauma and Providing Follow Up

Many barriers exist inhibiting clinician's ability to adequately screen for trauma histories in PLH. In this treatment center, providers are allotted 30 minutes to 1-hour to complete patient medical visits which providers identify as one of the most debilitating barriers to screening for trauma. Limited time with the patients requires physicians to prioritize medical conditions to address during these visits and are likely to ensure that all immediate medical issues are dealt with first. Providers described having limited time to bring up trauma suggesting that if patients don't bring it up than it would go without notice.

> *"We only have half an hour to see the patient. And in that half-hour, you have to take care of their, um – of their, uh, physical health, of their HIV, of their sex life, of, uh, doing – and refill of medications, and everything else in between. So unless they volunteer, nobody would have the time to sit down and explore that. And that's like a deep process. That people don't normally volunteer that to you unless you, um, ask them. And you have – and you are not rushed. Half an hour in this clinic is not enough."* [Provider, Family Clinic]

The barrier of limited time allotted for clinic visits with providers is exacerbated by the large patient volume. As a large urban HIV treatment center, a growing patient population places pressure on the health system to see more patients each day which shrinks individual patient time.

> *"I think in education part of the problem is volume."* [Provider, Main Clinic]

There is no required or provided trauma training for providers and staff that work at this treatment center, which inhibits employees from providing TIC to patients. Participants explained that they have a lack of knowledge of available resources for patients suffering from traumatic histories as a reason they choose not to screen at all. They are unsure of what steps to take after patients disclose trauma therefore they shy away from asking the questions at all.

> *"And otherwise it's sometimes hard to be … like a provider, talking about that, cause I don't have training in talking to patients about trauma related events, and so really my best offer is to refer them to mental health services."* [Provider, Family Clinic]

> *"If the assessment doesn't tell you exactly what to do with the responses meaning you know when to kind of raise your, raise your concern, it doesn't give you kind of like a cut-off value for when to raise your concern, um, if the assessment itself you know causes anxiety for the patient, um, or*

> *stresses them out or causes some other distress, um, and I guess if in general there's other complexities to the patient's visit such that the screening the screening tool doesn't fit, like, it doesn't take priority over other assessments for example."* [Provider, Family Clinic]

Lastly, providers described the importance of having screening tools that are effective and efficient. Tools that require extra steps on the part of the physician, i.e. paper forms, and lengthy screening tools, are ones that would be barriers to trauma screening at this treatment center.

> *"Those are my two things. And when it's a lengthy paper form, then it just becomes more cumbersome for the clinician and I can pretty much guarantee that it won't be [laughs] used."* [Provider, Main Clinic]

Staff identified barriers placed emphasis on the patients. Currently, screening in general occurs during intake and enrollment. Staff identified this as a barrier to trauma screening believing that it would be too early to ask patients to divulge this information and that there needs to be more rapport built before tackling these questions.

> *"So I'm not sure – doing that kind of stuff at the front end is the right – like the first visit – I don't know if that's the right place to do it, or whether that's something that comes in a little bit later."* [Staff]

Another barrier to trauma screening is the risk of patient re-traumatization caused by having to repeat the same screening points at multiple staff and providers during their clinic visit.

> *"So one thing that I find is that sometimes they're asked those questions again, um, which I think can sometimes be good but also sometimes can be re-traumatizing, if they can't look at those questions and ask. So if they look at those question-, if they answer those questions in the education department, then when a patient comes to the second floor, um, they will most of the time get some of those questions asked again by the provider and then also by the social worker."* [Staff, Education]

The final staff identified barrier is that trauma screening would be treated like a necessary checklist rather than with the empathy it deserves:

> *"I mean, definitely the lack of support. The lack of patience, you know, just, like, trying to get through the questionnaire 'cause it's something that we have to do. And I think sometimes 'cause we feel like we have to do it, we're not coming from a compassionate place sometimes, like "Okay, I have to ask you these questions. I gotta ask these questions again in six months," as opposed to, like, "We will reassess everything and see what your needs are again in six months, um, or a year." Um, so those are things I can think of, um."* [Staff, Education]

Both staff and providers felt that this clinic has a significant lack of communication between staff in the education department and providers. Staff in the education department are responsible for intake and enrollment of patients and complete most of the initial screenings. The portion of the EPIC medical record system that is used to house completed screenings from the education department is inaccessible to many

staff, and for those who can access it, it is time consuming to locate which results in providers not looking through the information and just completing it again.

> *But it's [intake assessment] super buried. I don't think I could find the form really easily right now, but it's certainly, like, when I'm getting a new patient, I'm, I don't have time. They'll have other medical problems, so unless it's kinda listed as a problem, like, bipolar is listed, PTSD is listed, um, I'm not searching for their forms. It's no, there is one I think, but it's not easily available.* [Provider, Family Clinic]

> *"For starters, it's in a really obscure place, um, in Epic and so to access it, you kinda have to have – make multiple clicks and know exactly where to go to find it. Um, so it's [intake assessment] not readily accessible, um, and in addition to that, I feel like we end up asking the same questions over anyways through – through our initial, like, new patient appointment."* [Provider, Main Clinic]

Facilitators to Screening for Trauma and Providing Follow Up

Participants were asked to identify factors that are related to successful trauma screening, either factors that currently exist at this treatment center, or factors that can aid in creating a more useful screening tool. Providers responses focused on components of screening tools that would support their use in the clinical setting. Screening tools which can be quickly administered, that are easy to remember, and/or are imbedded in the chart. Tools that can be used conversationally and that are not required to be completed in any specific order, better lend themselves to this treatments centers clinic flow. Most participants describe the need for trauma screening protocol that provides clear follow up directions for patients that are found to have trauma histories.

> *"if it's fast if it's something that I can remember without having to look at a piece of paper, um, if it's something that I can um incorporate into a diverse, diverse area of my patient assessment, like, doesn't have [to] be done in a certain order of the patient assessment if that, I can incorporate it into different areas um and I guess last would be if there is an action item that directly results from the screening, like, if question A is answered this way then we need to do do X, um and then if those action items are easy to remember and have um you know sort of a procedure by which um they can be carried out."* [Provider, Family Clinic]

Staff described team collaboration and communication, as a key facilitator of trauma screening.

> *"Um, the screening goes well because we have a – a team of, um, navigators, peer counselors that – and financial counselors, patient _____ representatives and, um, case managers, and, um, nurses that work together and make it work well. So, it actually works."* [Staff]

Additionally, staff explained that it is important for staff and providers to check in on patients as they are being screened for trauma to ensure that they are not being retraumatized.

> *"And then afterwards I can always say, you know, "If this is uncomfortable for you, I can – you know, we can talk about this, we can do some grounding activities, I can link you to Center for Well-Being," you know, just let them know that there's support here."* [Staff, Education]

They indicated that clear definitions of staff and providers roles facilitate screening for trauma.

> *"Provider's job is to get them well medically. Our job is to get them well socially. You know, so, we um we know our roles. Is something medical is going on with the patient while I'm talking medically, while I'm talking to them, of course I'm going to bring them up to the providers. SO they're gonna do the same thing for us, so they've been very very helpful."* [Staff, Social Services]

Both staff and providers identified multi-disciplinary collaboration as one of the main facilitators of trauma screening at this treatment center. They described multi-disciplinary meetings as a place to discuss challenging patients and connect with other providers that care for the same patients.

> *"One of the things we also have is multi-disciplinary rounds. Every Thursday for two and a half hours, a very long meeting, we go over patients that have either left that week or coming that following week. And each person kind of talks about what's going on from their discipline.… So, I think that's one of the strengths is that, um, we have access to these kinds of assessments and each discipline can ask their own separate follow up questions."* [Provider, Main Clinic]

Offering Services and Trauma-Specific Interventions Items

Table 9: TIC assessment survey items evaluating the offering of services and trauma-specific interventions. *Average Likert Scores are presented for each question showing a comparison between providers, staff, and the combined averaged of the two groups. A mean score of >2.0 indicates perceived presence of a service or activity, a mean score between ≥1.4 and ≤2.0, indicates that a service or activity is in need of improvement, and an average of <1.4 indicates the perceived absence of a service or activity.*

	Providers (n=14) Avg. Likert Score	Staff (n=17) Avg. Likert Score	Combined Avg. Likert Score
The treatment center provides opportunities for care coordination for services not provided within that organization.	1.7	2.5	2.1
The treatment center educates patients about traumatic stress and triggers.	0.9	2.3	1.8
The treatment center has access to a clinician with expertise in trauma and trauma-related interventions (on-staff or available for regular consultation).	1.7	2.5	2.1
The treatment center provides opportunities for patients to receive a variety of services (e.g., housing, employment, legal and educational advocacy, and health, mental health and substance abuse services)	2.4	2.6	2.5
When mental health services are needed (i.e. individual therapy, group therapy and/or family therapy), the treatment center refers patients to counseling.	2.4	2.6	2.5
The treatment center provides opportunities for patients to express themselves in creative in nonverbal ways (i.e. art, theater, dance, movement, music).	2.1	2.3	2.2
Written safety plans (i.e. what a patient and staff members will do if the patient feels threatened by another person outside of the treatment center are incorporated into patients' individual goals and plans.	0.9	2.3	1.7
Each patient has an individualized written crisis prevention plan (i.e. for how to help manage stress and feel supported) which includes a list of triggers, strategies and responses which are helpful and those that are not helpful and a list of persons the patient can go to for support.	0.8	2.1	1.5

Semi-Structured Trauma Informed Care Survey Self-Assessment Results

Eight survey items were used to evaluate the treatment center's ability to offer services and trauma-specific interventions. Of those 8, 5 items received a combined Likert score of >2 indicating that providers and staff perceived the presence of these items. The first being that the treatment center provides opportunities for

patients to express themselves in creative in nonverbal ways (combined mean score 2.2), second, that the treatment center refers patients in need of mental health services to counseling (combined mean score 2.5), and third the center provides opportunities for patients to receive a variety of services (e.g., housing, employment, legal etc.) (combined mean score 2.5). Additionally, most participants agreed that the treatment center has access to a clinician available with expertise in trauma and trauma-related interventions (combined mean score 2.1). Lastly, that the treatment center provides opportunities for care coordination for services not provided within that organization (combined mean score 2.1).

Staff perceived the presence of all items associated with offering services and trauma-specific interventions, scoring >2 on 8/8 survey items. Providers scored <1.4 on 3 activities indicating that they perceive an absence of these services. Providers also scored between ≥1.4 and ≤2 on 2/8 items suggesting the "need for improvement" of existing services/activities.

Participants expressed concern that the lack of appropriate trauma screening inhibits the ability to offer patients appropriate services and that the 30-minute clinic visit providers have with patients is not sufficient to thoroughly delve into these issues and create a plan to address these issues as well as the other health issues. *"Given the limit of 30 minutes for patient's visit, I doubt providers will have time to discuss additional issues with patients." "As a provider, I have not seen a lot of the intake screening information on the patients who are assigned to me and what services they have already been referred for."*

Some participants also discussed inefficient skill sets among the staff and providers to handle trauma related issues citing a lack of internal training as one issue. *"None of the medical staff have been offered trauma-specific training unless they were offered it elsewhere or in their previous employment."*

Qualitative In-depth Interview Results

Barriers to Offering Services and TIC Interventions: Focus on Adopting Trauma Informed Care

A common theme throughout this section of the interview is that participants express the fear and resistance that exists at this clinic related to any change. Many participants described the distain they see for any new procedure or policy that is attempted to be incorporated in this treatment center.

> *"There was a lot of fear and a huge amount of resistance to change in this clinic."* [Provider, Main Clinic]

Participants reflected on attempted implementation and identified some key barriers which resulted in the slow of unsuccessful implementation of these interventions. The first few of these focused-on staffing issues. One implementation was described as not having enough staff to man the clinic wide change.

> *"I don't know I guess the other official role out maybe, get patients diagnosed with HIV at* [Treatment Center] *down here and on meds within 72 hours. And so there were a few staffs that*

> *worked on that project. And did it for a while. The idea was to roll it out clinic wide. But it was too difficult, we couldn't do it. We didn't have the staff or the resources that we needed. So, but there is a real effort made towards that. I wasn't one of them, but we would have regular updates at meetings on how it is going, how many patients they are seeing, what the problems where? Sort of what the hiccups were?"* [Provider, Main Clinic]

Some implementations did not have an identified change team that was a part of the development of the implementation to facilitate the molding of a program to something that would work in the current clinic structure that exists.

> *"I'm sure that there are some organizations that have a team that all they do is help figure out how to make change happen within an organization and that they're not in charge of a specific change but like how to make that happen as an organic part of the program. I'm not sure we have that in our system."* [Provider, Colposcopy]

This clinic hosts monthly staff meetings that help to disseminate information to the clinic staff however not all staff attend these meetings. This creates a barrier in relaying information consistently to all staff and can delay the implementation of an intervention.

> *"More than likely, the next month after that, the – you know, we'll all talk amongst ourselves if we were at that staff meeting. But not everybody goes to the staff meeting – or there's – not everybody goes to the staff meeting, so not everything gets relayed in a timely manner."* [Staff]

Some previous interventions targeted specific groups od staff and providers and this created a barrier to successfully communicating the information. Some employee groups felt upset for being left out of the communication which only enhanced the tensions and confusion in the treatment center.

> *"Um, also lots and lots and lots of communication. Um, so we made our mistake early on of like, "Yo, if you just target this audience," and then of course, we left out this audience and then they got pissed off and so, you know, that, you know, created more animosity and resistance and so just being really, like, open to essentially introducing this change to everybody across the board in a very fair manner and not leading anybody else off, you know."* [Provider, Main Clinic]

Inconsistent information spread has been a common theme throughout all TIC domains and is highlighted as a barrier to adopting TIC. With the introduction of the patient fast track system, communication was inconsistent and months later the clinic finds that patients are still being given the wrong information by staff who never received information about the change.

> *"Not everybody knew about the r-, the fast-track reenrollment. So there were patients who were getting turned away because of it, um, and saying, "Come back whenever you have such and such." Um, some people not knowing about it, people being inconsistent. So sometimes people would let it work, and sometimes people wouldn't"* [Staff, Enrollment]

On an administration level, participants expressed frustration with the fact that large scale clinic changes occur with no time to adjust. Providers and staff are still expected to have the same level of productivity

and this is a barrier to implementing TIC because this would encourage employees to skip over the new procedure and do things that they are already familiar with.

> *"You change what you – how you do your work and, you know, you, hm, kinda maybe you should have less patients scheduled for a couple of months while that works itself out, you know, but you're still expected to perform at the same level, so, you know, I think that it would"* [Provider, Colposcopy]

Lastly, a mechanical barrier exists to adding TIC related information to the clinic chart. The EMR system tends to slow down when providers attempt to open new or separate screeners, which is frustrating and time consuming in an already time deprived environment.

> *"With the alcohol screen, oh, my God – that's when we – that's when I discovered that Epic was just not coping with this very well at all. Because if you add it, it slows the system down to the point that you can't do anything and – if you add it to your list."* [Staff]

Facilitators of Offering Services and TIC Interventions: Focus on Adopting TIC

When asked to discuss barriers and facilitators related to adopting clinic wide TIC procedures, participants used the implementation of the electronic medical record (EMR) to explain components that worked well with a clinic wide change. The first facilitators mentioned was that the rollout was conducted on a department by department basis allowing time for each department to get a grasp on the program before moving on to the next department. This allowed for minimum disruption in clinic wide services and allowed the implementation team to be fully available for a few staff at a time incase questions or problems arose.

> *"I thought they were very smart in how they rolled it out, too. Because psych, I know, was the last group to get epic privileges to record an epic – I could see what was going on, but my notes were still done on paper. So they rolled this out department by department by department. So if there were kinks, problems, whatever, it didn't affect everybody all at one time and so it wasn't like this systemic halt. Um, so I thought that really worked to do each little department have a couple of people. That way the epic computer people could respond to individual problems, like, right away"* [Provider, Colposcopy]

The EMR rollout also included a set of peer supports that were available during business hours to answer questions for employees that were having trouble navigating the system.

> *"Um, some things were really well implemented and we had, um, super users, so folks who had lots of – were providers and nurses who had lots of extra training in how to use the EMR so that they could be sort of, um, peer experts that we could go to."* [Provider, Colposcopy]

Lastly, participants explained that this implementation included the use of a quality team, whose role was to conduct random chart audits and ensure that providers were completing their tasks and charting appropriately.

> *"And they measured that intervention by having the quality team, uh, randomly review so many charts per provider, and see whether that was done or not. Another way they did that is having us, uh, fill out a form with a check mark and write whether we addressed that during our visit or not. Yeah"* [Provider, Family Clinic]

There were many facilitators that are current assets to the clinic structure that could be leveraged in the implementation of TIC. Currently the EMR has a note template that providers and staff use to report the details of the visit they have with the patients. Participants believe that TIC related questions could be added to this template to serve as a reminder to providers to have the conversation around TIC, and to ensure that every patient is asked about trauma.

> *"No, I think there's a few different ways. Like, one would be to, to, to put it into the template at the clinic notes, um, like if every time we had wrote a new clinic note if it always had an area where I could fill in the (inaudible), or, or um this is an example from my experience with HIV and pregnancy. We were having trouble figuring out if an where Mom was getting care, and so the pediatric providers just put it in their template that there's a line that says "is mom receiving care?"* [Provider, Family Clinic]

Additionally, participants explained that TIC implementers can add to mandatory existing clinic procedures so that providers have an additional reminder that this line of questioning needs to be occurring. Some procedures, like completing the Ryan White form, occur for every patient after every appointment, and treatment center funding is dependent on this documentation. Participants suggested that the clinic could add to this form asking, "did you ask about trauma," which would serve as an additional check that this line of questioning is happening at each visit.

> *"Um so Ryan White um is part of again part of our monitoring whether we're doing what we're supposed to do to receive funding. There is actually a slip of paper that we have to fill out at checkout for every patient that asks certain questions that must be submitted for Ryan White um for example it asks um if we did counseling on adherence to medications. Um, and it asks whether or not we did a pap smear, this visit. Um and so if something you know if you wanted to make sure somebody did it, you could put it on that form so you have to check that off to confirm that you did it. Um, and that that for is always monitored and tabulated um."* [Provider, Family Clinic]

Implementing a new practice at this treatment center requires communication with all parties involved. Participants believe that there should be multiple levels of communication during the roll out of a new practice or procedure to ensure that all employees are up to speed and know that this is an important new measure.

> *"Um, I think typically if something new is gonna happen, then typically they try to have some type of – the ideal would be to have some type of heads up warning electronically. Um, I have been to in-services when something new was happening. Um, sometimes you just walk in and you find out we're doing this this way now [laughs], so, "Well, darn it." So, it's, yeah."* [Provider, Family]

An existing asset to adopting TIC is that there is currently a staff meeting once a month for information to be disseminated which could be used to share information or complete staff wide training.

> *"Talked about it at a staff meeting. [Laughs] So I go to all the staff meetings, so most of the time I find out what's going on, most of the time. Um, what worked fairly well was, um, it was talked about in the staff meeting, answered questions, people got on board with it, which I think actually determines, um, if something's going to be implemented well here, is that the staff is like, "Oh, yeah, that's a good idea." Um, and then they made sure to remember it to further implement it. Um, so I would say that's, like, what went well, was people were motivated by something that was helping the patients."* [Staff]

The EMR system used in this clinic is equipped with the ability to send reminders to providers and staff who do not complete their patient notes within 24 hours of seeing the patient. This could be an asset to the adoption of TIC.

> *"Well, if you don't do your notes within 24 hours, they send you a little [laughs] – they'll send you a, um, notice, um, because our notes need to be in within 24 hours, preferably the same day. And so the system manages that, and the document, the – someone will send emails and let you know, uh, these charts are still open. And so you have to go in and do whatever needs to be done and close the chart. So it is – it is monitored."* [Provider, Center for Wellbeing]

Using their experience with other new policies and procedures, participants described components that will aid in the implementation of clinic wide culture shift to providing TIC. The first of these is that they believe that training should be introduced by staff or department group. This allows the training to be tailored to the positions or demographic groups that that department serves making the information more relevant and useful. Additional trainings must include clear steps to be followed and an explanation on how this new practice will alleviate burden and barriers.

> *"Well I think that they did a lot of sort of individualized training for providers and staff. Um, that went through not just what we're doing but why we're doing it, um, so and it and I think you know again I only saw the provider end of that training but I would assume based on people's understanding that those trainings were tailored to people's levels, you know, and that the person delivering it was also um you know their peer, um, and you know the procedures were clearly written out and got approval you know up and down the chain. Um, and there, they were written sort of in clear steps with full diagrams about what was gonna be done, and then the last was that all the sort of hurdles were taken away um I think providers saw that it was a relief that some of the barriers removed, and so they saw it, they saw the actual intervention as a benefit."* [Provider, Family Clinic]

Participants explained that historically, new practices or procedures that were not accompanied by a monitoring system did not work out. It is necessary to monitor new procedures and policies.

> *"That inclusivity, um, was really important. So it just, it took a lot of conversations, a lot of time, a lot of meetings, and just continuous monitoring and as soon as the monitoring kinda stopped, the whole – the whole program kinda stopped."* [Provider, Main Clinic]

Participants recognize the benefit of having a champion for change to encourage the clinic to buy in to any new models or procedures.

> *"Anything that needs – any change that happens in the clinic really needs a champion is what I've realized in this clinic. Like somebody has to be fiercely championing it in order to make it work. Um, and that's even for things that are benefit – I mean, it's probably a little bit less, um, necessary for things that the providers are just already bought into and want and it's a welcome change but – but even – even then, I feel like somebody, like one or two people that are just dedicated to making this happen and just driving the heck out of it."* [Provider, Main Clinic]

Lastly, participants explained that patient feedback can be a valuable asset to the treatment center and that this could be a facilitator of successful implementation of TIC. They highlighted the need for this patient feedback to be shared with providers and staff.

> *"And they have, like, loads of patient surveys. Like, have you seen your doctors and sometimes they'll go over those. Like, what are the results, like, have you seen your doctors wash your hands? 97 percent of patients say that their doctors have been doing that. So periodically, we get feedback on whether this has been happening or not"* [Provider, Pediatrics]

2.5 Discussion

Trauma informed models of care have the potential to not only better HIV patient health outcomes through enhancing patient engagement in care, but also aid HIV care providers and treatment center staff in caring for PLH. This TIC self-assessment evaluated the current level of TIC provided at a large comprehensive HIV treatment center while eliciting staff/provider identified barriers and facilitators to providing this care effectively. We aimed to inform public health efforts to integrate trauma informed care into HIV treatment center operations. Participants at this clinic expressed support for implementation of a TIC model and believe that their clinic structure is a huge asset to their community and with more attention to staff and providers concerns, the facility could be even more patient centered and trauma-informed. One participant highlighted just this through the open-ended response section of the semi structured survey;

> *"I consider [Treatment Center] has to have all the necessary elements to provide a patient-focused multidisciplinary approach to providing care…. but urgently we need to attend to provider/staff engagement (i.e. meeting the needs of providers/staff). Happy (or happier) providers = happy (happier patients)"*

Results of the TIC Treatment Center Assessment

The results of the semi-structured survey conducted with staff and providers revealed that there is an immediate need to improve services related to trauma informed care. Using the combined Likert scores across the eight TIC domains, two major treatment center strengths and two treatment center weaknesses were identified. Trauma training/education and workforce development were highlighted as the most significant center weaknesses. Participants perceived an absence of formal or informal training related to managing patients with histories of trauma and how it impacts their patient population. This low assessment by providers and staff was supported by qualitative data where participants expressed their lack of comfort with screening patients for trauma because they do not feel confident in their knowledge of how to help or manage trauma within a patient care. Participants also highlighted a lack of services available for employees related to workforce development and self-care. There was an especially low assessment of the use of provider and staff feedback for clinic improvements as participants expressed that they did not perceive their feedback as valuable to the administration or supervisors. Participants expressed this same concern through qualitative data explaining feeling overwhelmed and undervalued because their concerns are sometimes ignored.

As a comprehensive health system for PLH, many services related to HIV comorbidities and risk behaviors are housed in the same building as their medical care to encourage patient access to care. It is to no surprise that staff/providers identified "Offering Services and Trauma-Specific Interventions" as the most significant strength of this clinic. Many items in this survey section concentrated on the availability of services on site in in the surrounding community and this is a huge benefit at this treatment center. Additionally, providers and staff perceived a strong presence of "Open and Respectful Communication Towards Patient" highlighting this domain as the second strength of this center. Qualitative data supported that these areas are strengths of this clinic however many participants suggested that many participants believe that there is still room for growth. Mention of a constant need for cultural awareness and empathy training and the need to offer their services more efficiently was notable in our sample.

Next steps to integrating clinic-wide TIC practices at this TC and other similar HIV care centers should include implementing strategies to address the barrier identified in the staff/provider-identified weakest areas of service delivery. In this case, an emphasis needs to be place on providing employees with thorough trauma training and placing increased emphasis on employee self-care and satisfaction. Beginning with these weaknesses will benefit the clinic by increasing provider and staff readiness for TIC implementation, which will ultimately have downstream effects of better care for patients.

Emergent Strategies: Using Barriers and Facilitators Enumerated by Staff/Providers

Trauma Training and Education: No matter the setting, all TIC models require significant training for employees at all levels, clinical and non-clinical [79]. Training in trauma should include an overview of TIC models, how trauma impacts the organizational population, what services are available in the local vicinity to facilitate recovery and what organizational changes will need to be incorporated [79]. Structural barriers to completing trauma training and education at this TC include finding times to have employees at all levels participate in an onsite training and concern for locating peer experts that are equipped to deliver concise materials that reach all staff departments and education levels. One important facilitator of training at this TC is the existence of monthly staff and provider meetings to disseminate information. Additionally, staff are familiar with using online platforms to complete training as their healthcare system has annual trainings which employees complete remotely using online modules.

Risking Connection® provides training in frameworks and skills for working with survivors of traumatic experiences [80]. Material and delivery can be adapted based on the needs of the community they are preparing for (Figure 1). They can provide both in-person and online training for organizations, which would be a benefit to this TC who expressed concern with all staff and providers being able to attend the training [80]. This is just one example of an organization who provides training in TIC to healthcare providers, though change teams should seek out resources from community-based organization which provide treatment for patient with HIV and trauma as this could also facilitate collaboration between communities. Additionally, change teams should plan to host multiple training events to capture the most staff possible for onsite training. With support from the administration, TIC training should be made mandatory for all employees given the high frequency of co-existent trauma in the patient population.

Note: This is a sample guide to the content and topics presented, and materials required to present a 6-hour program on RICH™ Relationships. "PG" refers to the Participant's Guide.

The program investment includes:

- Facilitation fee for 6 hour interactive, experiential program (PowerPoint slides, flip-charting, cases, demonstration of skill, audio files and when available video cases)
- Adjustments to content if needed for adapting to event
- Participant guide master file

Topic	Major message / Methods / Notes
Welcome	Introductions
Norms	Operating standards
Schedule / Housekeeping	Agenda / Keep it clean / Locations of exits
Other opportunities	Upcoming trainings
Objectives	What they will be able to do/know at the end of the program.
Evaluation	Level 1: Reaction to Event Level 2: Knowledge Acquired Facilitator Evaluation

Figure 1: Sample of content presented by Risk Connection during one of their TIC programs. [80]

Work Force Development: Participants perceived a huge gap in workforce development related to self-care, supervision, and use of employee feedback. Interviewees identified a key barrier to supporting employees in these areas: divisiveness that exists between departments and roles. Providers and staff perceive that administrators are disconnected from the problems that plague their everyday work environment. A facilitator of of receiving employee feedback if an annual survey that participants described completing to evaluate their job performance. Additionally, one clinic explained that they participate in monthly interviews with their supervisor to identify needs and problems.

Strategies for encouraging staff wellness and self-care are described by Menschner and Maul as a part of Center for Health Care Strategies [81](5). Implementation teams should place a special emphasis on providing staff and providers with tools to cope with the stress of their job, either through wellness programs (i.e. offering meditation classes or yoga to employees), or by encouraging support groups between staff. Interviewees described multidisciplinary rounds during which providers discuss difficult patients but mentioned that this time also enables opportunity to find support in peers. HIV TC should incorporate these multidisciplinary teams as a mechanism to combat divisiveness among staff and support staff need for self-care and collaboration. Examples of two organizations provided by Menschner and Maul who currently integrate TIC using strategies around work force development are Camden Coalition of Healthcare Providers and The Stephen and Sandra Sheller 11th Street Family Health Services of Drexel University [81](5).

Cross Sector Collaboration: Maximizing collaboration between healthcare providers and departments is imperative in connecting patients to trauma-informed services. Interviewees at this TC have expressed the necessity of multidisciplinary collaboration, and relationships with other employees as a key facilitator of successful internal referrals. Interviewees find that connecting patients to care works best when a staff or provider takes an active role in initiating the referral, scheduling it prior to the patient leaving the clinic, and following up to ensure that the patient completed the appointment. Cross sector collaboration at this TC is inhibited by the fact that no standard procedure exists to guide employees to completing referrals. Patients experience long wait times for referral appointments sometimes waiting as long as 6 months, and there is no system in place to remind patients of upcoming appointments, or to alert providers that their patients have not completed the referred visit, even though these services happen in the building. Nurses and providers are overwhelmed by large patient numbers; the added burden of the inefficient referral process is a barrier to their collaboration at this TC.

TIC training should include a session on services available at the TC, which department provides those services, and procedures to refer patients for those services. The creation of regular multidisciplinary rounds which include providers and staff that manage the same patients could support collaboration between roles and departments. Through multidisciplinary rounds, employees can become more familiar with staff whom may be able to assist them in the future as participants expressed the importance of staff relationships to complete patient referrals.

Trauma Screening and Follow Up: A fundamental component of providing TIC is to ensure that screening for histories of trauma is occurring throughout the clinic for all patients. Structural barriers to screening for trauma at this TC are related to an inefficient electronic medical record tool. Interviewees explain that the format of the EPIC medical record system makes initial enrollment screening tools inaccessible to most employees, causing a repeat in screening which risks traumatization of patients. Participants expressed reservations about screening patients too early in their enrolment process not allowing them to build rapport and trust. Lastly, no standard operating procedure exist to direct staff after they identify a patient as having a history of trauma.

Clinic charts could be a facilitator of trauma screening as they have imbedded tools that could be used to add a trauma screener or trauma screen reminder. For example, note templates guide providers through appointments and the system automates a reminder to complete clinic notes if they are not done in 24 hours. Interviewees request screening tools that are quickly administered, easy to remember, and/or imbedded in the chart, conversational, and are accompanied by clear follow up directions.

Trauma screening needs to begin with an update of the medical record system to include easy access to the screening tool by providers. The tool should be added to the clinic note template to serve as a reminder to

providers to ask these questions. As requested by interviewees and supported by TIC implementation strategies, screening should not occur during the initial enrollment, but instead occur during the provider interaction. This will allow patients to have the opportunity to build trust in providers and staff before being asked about their trauma history. Additionally, providers explained that they find more comfort in asking patients these questions on their own as they don't trust the information in charts previously recorded by other individuals. Having the screening occur later in the clinic flow would allow providers to be the ones completing this information. Lastly, the Ryan White check out form could incorporate a trauma screening question as a reminder to staff and providers. As the form is used to monitor and evaluate practices across Ryan White clinics, it could be an easy tool for the quality team to monitor implementation of trauma screening and referral.

Offering Services and Trauma-Specific Interventions: The comprehensive nature of this clinic provides many components needed in TIC and an implementation strategy that seek to weave these services together to facilitate a strong path of care for patients. Some of the barriers described by interviewees to adopting TIC begin with the fact that employees at this TC are reluctant to change. Historically, they have faced implementation of other programs that lacked strong culture change protocols, had inconsistent information dissemination across levels, and lacked sufficient staff to facilitate the rollout effectively. Additionally, employees have been expected to have the same level of productivity even when first attempting to navigate a new protocol, which makes it a challenge to learn while simultaneously providing care for the patients. Participants explained that when interventions worked, it was a result of multiple streams of communication, having a TC champion to advocate for the service, having procedures to monitor that the new procedure was being rolled-out effectively department by department, and ensuring enough time was allotted for each to grasp the procedure before moving to the next.

Menschner and Maul thoroughly describe tactics for health care systems to implement TIC approaches including many of the domains described in this paper [82]. Implementation at this and similar HIV care facilities should include multiple levels of communication during the rollout and incorporate a change team lead by a clinic champion who is identified by employees as respected, knowledgeable, and interested in pushing the goals of a TIC model. Additionally, it will be imperative that there are built in methods to monitor completion of TIC related activities (i.e. screening and referrals and to evaluate its impact on patients and employees). Prior to the implementation of TIC at any clinic, all of these domains need to be examined and center-specific strategies that address each gap should be developed and prioritized prior to implementation.

Patient Engagement: Qualitative barriers and facilitators for this domain were not collected. Trauma-informed approaches to care require patients to drive their health care plans by being actively engaged in

decisions related to their care. All HIV TCs should ensure that this is a component of care by providing peer support, peer-led resources, and ample opportunities for patients to ask questions and engage in care [82]. For more information surrounding strategies to increasing and encouraging patient engagement, the Patient-centered Comparative Effectiveness Research Center (PCERC) has produced a best practices guide including everything from training and concepts to research and monitoring these practices [83].

Physical Environment: Qualitative barriers and facilitators surrounding this domain were not collected. Open ended responses from the TIC self-assessment suggest that some employees feel concern for their personal safety. TC administration should develop a system where providers and staff are regularly asked to evaluate their perceived level of physical safety at work, which should include questions about physical safety, concerns and recommendations. This information should be used to evaluate TC safety protocol and enhance it where needed before safety issues are escalated. This data needs to be monitored on a regular basis (as determined by the TIC change team) to ensure that staff and provider safety is always a priority. Feeling physically safe decreases anxiety creating a space more conducive to patient care and facilitates provider engagement [82].

Open and Respectful Communication Toward Patients: Qualitative barriers and facilitators surrounding this domain were not collected, however interviewees expressed a continual need for cultural sensitivity and empathy training among all staff throughout the interview. Administration should consider providing a regular cultural sensitive training for staff and providers. This training will also facilitate the successful incorporation of trauma screening as such sensitive topics will need to be met with empathy, and conversations will need to be tailored based on the patient and his/her background [82].

Other Interesting Data Trends

It was apparent in the survey data that there was a difference in the perceived presence of TIC related activities and services expressed by providers and staff. Overall providers expressed more concern with the availability of TIC related services and practices than clinic staff. It should be noted that in the survey data we see a difference in the perceived presence of TIC but the qualitative data showed that both providers and staff perceived a low provision of TIC. Many barriers and facilitators for each domain were similarly expressed by both groups. A few plausible hypotheses exist for why this may be occurring. First, interviewees explained that annual employee satisfaction surveys are completed by health system employees, however many providers at this TC are not considered health system employees meaning they likely do not complete these surveys. This study may have been viewed by providers as a unique opportunity to express concerns with the health system and they may have used it to show some pent-up concern. In addition to the unique opportunity to evaluate their work place, providers may feel more comfortable discussing the strengths and weaknesses of their work environment because they are not employed by the

TC health system, and thus the negative feedback has much less impact on their job security. Staff on the other hand may feel uncomfortable with expressing criticism as they may feel less job security in their positions. Lastly, providers are trained through their schooling and employment to trust no one, and only rely on information they can verify themselves. These surveys attempted to capture an understanding of clinic wide practices and it is possible that providers perceived more absence because they do not perform these services and are less familiar than staff of other departments who may. This is a concept that will need to be considered by implementation teams when developing the training as they will have to clearly express the expectations and knowledge gaps of staff and provider roles in providing TIC.

2.6 Limitations

We sought to collect a total of 63 participants from 12 departments within the treatment center but were unable to successfully recruit all of them (Appendix 1). With collection of participants from only 9 departments within this treatment center, it is possible that we are missing some TIC barriers and facilitators that are unique to those missing departments.

We believe that there was response bias in our data as staff were more likely to report very high or positive evaluation of many concepts related to TIC as compared to their provider counterparts. We theorize that staff may be more likely to not share their grievances due to perceived lack of job security. Staff are easier to replace than providers, whom this data showed are in short supply and staff may be more wary about sharing their true assessment of their workplace. Additionally, staff may have less exposure to research as compared to providers and may have reservations about the true confidential nature of the information they share with researchers. We made certain to reiterate the confidential and separate nature of this work and deidentified all information which could link an individual to their comments only referring to participants by their classification and department. Another hypothesis is that providers are encouraged by their training to be skeptical of everything not done by themselves, so it is possible that they were more cautious about reporting an activity as present if they did not complete it themselves, even though the survey was asking for an organizational view of TIC. Lastly, providers are not fulltime employees at this clinic while staff are, so it is also possible that staff know more about the completion of activities related to patients than providers who may not be fully present.

Another limitation of our study is that our interview guide was very specific and elicited deductive responses, limited the ability of participants to share other information that may have been relevant to the overall topic of TIC. Additionally, the format of the interview guide began with asking participants about trauma screening. Training was the weakest area of TIC identified by staff and providers, many of which admit to not knowing what trauma is or how to manage it. By starting the interview with a very thorough

discussion of trauma screening, we may have guided participants to believe that screening for trauma is TIC, skewing the responses to the questions found later in the interview.

CHAPTER 3: CONCLUSION AND RECOMMENDATIONS

3.1 Conclusion

The benefit of the use of trauma informed care models in combination with HIV medical care is of increasing interest among HIV care systems. The treatment center we studied demonstrated strengths and gaps in its approach to TIC. A more systematic approach to TIC could eliminate differences in individual level practices that presently result in inconsistent and inefficient care for patients and enhance communication between employees and departments regarding patients who disclose trauma.

This study has the potential to inform treatment center-based interventions in the U.S, through identification of structural barriers and facilitators faced by staff/providers to provide TIC and comprehensive care for PLH. This information is especially valuable to clinics funded through the Ryan White HIV/AIDS funding program as they primarily serve communities which are low-income, uninsured and underinsured PLH. The resource constrained environments that these treatment centers operate under breed many of the barriers which were enumerated by staff and providers in this study. The identified barriers can be used to formulate strategies to increase employee satisfaction, knowledge of trauma and its devastating impact on human development and HIV care, and to inform means of identifying and connecting patients to trauma resources.

It is also important to recognize that barriers enumerated by the participants, such as poor communication, ineffective medical recording tools, staffing issues and lack of training and education surrounding patients with histories of trauma have been reported for decades (Kinsky *et al*). The habitual existence of these barrier points to a persistent complexity of managing medical care that has yet to be acknowledge by HIV care systems. It has yet to be established why these structural barriers to providing care persist, but TIC encourages practices that aim to facilitate a better working environment for providers and staff and has the potential to alleviate many of the barriers identified in this study. In addition to the possible benefit for healthcare employees, the high rates of trauma and its established correlation to poor health outcomes in PLH underscore the need to incorporate a trauma informed models of care in to facilities that mange HIV care.

3.2 Recommendations

Staff on this study plan to use the findings of our TIC assessment and the in-depth interview to develop a multilevel implementation strategy to integrate a clinic wide TIC model. Treatment centers with a similar

clinic and population characteristics should consider building on the information presented here to begin the implementation of TIC into their own treatment models. To our knowledge there is no published studies which measure the impact of TIC implementation on patient health outcomes and employee engagement/satisfaction. This knowledge should be a focus of future research to build support for more integration of TIC in HIV care centers as well as many other medical care models. It will also be important to measure the impact of implementation of each of the 8 SAMSHA identified TIC domains to identify which domains have the greatest impact on patients, staff and providers.

For this assessment, we focused on examining organization trends, asking staff and providers broad questions about the occurrence of TIC indicators throughout the clinic, example “does trauma screening happen for all patients at this treatment center?” Future studies should consider using individual or department level analysis to gauge a more accurate picture of TIC on an organizational level. For example, “does trauma screening occur for all patients who visit your department?” There is some literature which cautions against asking individual level questions to employees at their place of employment, but some participants may find it easier to assess the availability of services in their own department rather than being asked to evaluate services in departments they are less familiar with.

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APPENDIX 1: Recruitment Strategy

Table 10: Projected Recruitment Strategy. *This table includes a breakdown of the ideal number of staff and providers needed to get a proportional sample from the treatment center.*

Clinic/ Department Breakdown	Survey (n=38)		In-depth interviews (n=25)	
	Providers (n=18)	Staff (n=20)	Providers (n=11)	Staff (n=14)
	Planned	Planned	Planned	Planned
Main clinic	5	4	3	1
Family clinic	5	4	2	1
Pediatrics/Adolescent Clinic	4	2	2	1
Transition Center	0	1	1	1
Treatment and Holding	0	1	0	1
Center for Wellbeing	2	1	1	1
Registration (financial counseling and patient access representatives)	0	1	0	1
Education (Peer counselors, health educators, intake RN)	0	3	0	3
Pastoral and palliative care	0	1	1	1
Dental clinic/oral health center	1	0	0	1
Colposcopy/endoscopy	1	0	1	0
Social services (Care resource coordinators – AKA case managers, social workers, patient navigators)	0	2	0	2
Total	18	20	11	14

Table 11*:* Final Recruitment Accrual. *This table includes a breakdown of the actual number of staff and providers recruited to participate in the semi-structured survey and in-depth interview.*

Clinic/ Department Breakdown	Survey (n=31)		In-depth interviews (n=19)	
	Providers (n=16)	Staff (n=15)	Providers (n=9)	Staff (n=10)
Main clinic	7	3	3	1
Family clinic	3	1	3	1
Pediatrics/Adolescent Clinic	4	3	1	2
Transition Center	0	0	0	3
Center for Wellbeing	1	2	1	1
Education (Peer counselors, health educators, intake RN)	0	2	0	0
Pastoral and palliative care	0	1	0	1
Colposcopy/endoscopy	1	0	1	0
Social services (Care resource coordinators – AKA case managers, social workers, patient navigators)	0	3	0	1
Total	16	15	9	10

APPENDIX 2: Semi-structured Survey Instrument

Trauma-Informed Organizational Self-Assessment
(To be completed by staff/providers)

"Trauma" includes events or circumstances that are physically or emotionally harmful or life-threatening, that have lasting adverse effects on functioning and mental, physical, social, emotional, or spiritual well-being.
Through this assessment we aim to develop strategies for the [Treatment Center] to help better identify the trauma experienced by its patients, to support patients who have experienced trauma, and to avoid clinic-based situations that may result in patients being re-traumatized.
Please complete the assessment based on your experience as a [Treatment Center] staff member over the past year. **By "staff" we mean any individual providing clinical care or other supportive care regardless of position/title (physician, nurse practitioner, physician assistant, nurse, social worker, etc.)**
Read each item and rate it from "strongly disagree" to "strongly agree," using your initial impression. **Remember you are evaluating the [Treatment Center] not your individual performance.**
Department within the [Treatment Center]: _____
Date of completion: __ __ /__ __ / __ __ __ __
Role within or relationship to [Treatment Center] (optional):_____

Training and Workforce Development						
Training and Education	Strongly disagree	Disagree	Agree	Strongly agree	Do not know	
Staff (including providers) at all levels of the [Treatment Center] *receive training and education on the following topics:*						
1. What traumatic stress is						
2. What domestic violence or intimate partner violence is						
3. Factors that increase risk of trauma						
4. How traumatic stress affects the brain and body.						
5. Symptoms and signs of trauma						
6. How to effectively screen or ask patients about different types of trauma						
7. The relationship between mental health and trauma						
8. The relationship between substance abuse and trauma						
9. The relationship between homelessness and trauma						
10. The relationship between HIV and trauma						
11. The negative effects of trauma on the mental and physical health of individuals of all ages						
12. The relationship between childhood trauma and adult re-victimization (e.g. domestic violence, sexual assault).						
13. Working with people whose background differs from their own						

14. Cultural differences in how people understand and respond to trauma.						
15. Risk for re-traumatization of victims of violence by staff and peers.						
16. How working with trauma survivors impacts staff.						
17. How to help patients identify triggers (i.e. reminders of dangerous or frightening things that have happened in the past)						
18. How to help patients manage their feelings (e.g. helplessness, rage, sadness, terror)						
19. De-escalation strategies (i.e. ways to help people to calm down before reaching the point of crisis)						
20. How to develop safety and crisis prevention plans.						
21. Informed consent and confidentiality						
22. What is asked in the intake assessment						
23. How to establish and maintain healthy professional boundaries.						

What (if anything) would you like to add about training and support for staff around trauma?

_____
_____
_____

What are the strengths of the [Treatment Center] in this area? How could things be improved?

_____
_____
_____

Training and Workforce Development						
Staff supervision, Support, and Self-care	Strongly disagree	Disagree	Agree	Strongly agree	Do not know	
24. Staff members have regular team meetings.						
25. Topics related to trauma are addressed in team meetings.						
26. Topics related to self-care are addressed in team meetings (i.e. vicarious trauma, burn-out, stress-reducing strategies)						
27. Self-care is encouraged and supported with policy and practice at the [Treatment Center].						
28. Staff members meet with their supervisor/director regularly.						
29. Staff members receive individual supervision from someone who is trained in understanding trauma.						

30. Part of staff's time with their supervisor/director is used to help staff members understand their own stress reactions.						
31. Part of the staff's time with their supervisor/director is used to help staff members understand how their stress reactions impact their work with patients.						
32. The [Treatment Center] helps staff members debrief after a crisis.						
33. The [Treatment Center] has a formal system for reviewing staff performance.						
34. The [Treatment Center] provides opportunities for on-going staff evaluation of the program.						
35. Staff have adequate support in dealing with challenging client situations.						
36. Supervisors have an understanding of the emotional impact (burnout, vicarious trauma, and compassion fatigue) associated with their work.						
37. The [Treatment Center] provides opportunities for staff input into program practices.						
38. The actions that follow (solicitation of input) demonstrate that staff have been heard.						
39. Supervisors communicate that staff members' opinions are valued even if they are not always implemented.						
40. Outside consultants with expertise in trauma provide on-going education and consultation.						

What (if anything) would you like to add staff supervision, support and self-care at the [Treatment Center]?

_____
_____
_____

What are the strengths of the [Treatment Center] in this area? How could things be improved?

_____
_____
_____

Physical Environment						
	Strongly disagree	Disagree	Agree	Strongly agree	Do not know	
41. The facility has a security system (i.e. alarm system).						

42. [Treatment Center] staff monitors who is coming in and out of the program.						
43. Staff members ask patients for their definitions of physical safety.						
44. The environment outside the [Treatment Center] is well lit.						
45. The common areas within the organization are well lit.						
46. Bathrooms are well lit.						
47. Staff can lock bathroom doors.						
48. Staff have access to private, locked spaces for their belongings.						
49. Procedures are in place to protect both staff and patients if a perpetrator attempts to enter.						
50. A quick response agreement is in place with local law enforcement should a perpetrator attempt to enter the [Treatment Center].						
51. Procedures that protect the confidentiality of current patient are in place for screening new admissions to determine whether they are perpetrators of current participants.						
52. A policy is in place to deny admission to the perpetrator of a current patient and refer elsewhere.						
53. Procedures are in place to assist a patient in accessing HIV care in another community if it is not safe for him/her to use [Treatment Center] services.						
54. The [Treatment Center] incorporates child-friendly decorations and materials.						
55. The [Treatment Center] provides a space for children to play.						
56. The [Treatment Center] provides patients with opportunities to make suggestions about ways to improve/change the physical space.						
57. Physical restraints are used only as an exception						
58. Staff and other professionals do not talk about patients in common spaces.						
59. Staff does not talk about patients outside of the [Treatment Center] unless at appropriate meetings.						
60. Staff does not discuss the personal issues of one patient with another patient.						
61. Limits of confidentiality, how records are kept, who has access to the information, and how information						

could be used to the patient's detriment are carefully explained to patients before information is collected.						
62. Patients who have violated rules are approached in private.						
63. There are private spaces for staff and patients to discuss personal issues.						
64. Clinic waiting rooms are safe for patients.						
65. [Treatment Center] information is available in different languages.						
66. Staff and patients are allowed to speak their native languages within the [Treatment Center].						
67. Staff shows acceptance for personal religious or spiritual practices.						

What (if anything) would you like to add about the environment (physical and supportive) at the [Treatment Center]?

_____
_____
_____

What are the strengths of the [Treatment Center] in creating an environment that is safe and supportive? How could things be improved?

_____
_____
_____

Screening, Assessment and Treatment Services						
Open and Respectful Communication	Strongly disagree	Disagree	Agree	Strongly agree	Do not know	
68. Staff members ask patients for their definitions of emotional safety.						
69. Staff members ask patients what they need to feel emotionally safe at the [Treatment Center].						
70. Staff members practice motivational interviewing techniques with consumers (e.g. open-ended questions, affirmations, and reflective listening).						
71. The [Treatment Center] uses "people first" language rather than labels (e.g. 'people who are experiencing homelessness' rather than 'homeless people').						
72. Staff uses descriptive language rather than characterizing terms to describe patients (e.g. describing a person as 'having a hard time getting her needs met' rather than 'attention seeking').						
73. Staff consistently explains examination procedures and asks						

patients permission before touching them.						
74. Staff consistently take patients' trauma histories into consideration when performing pelvic, genital, and/or rectal examinations.						
75. Staff consistently explains the plan of care to patients.						
76. Staff consistently gives patients opportunities to ask questions about their health and care.						
77. Staff consistently addresses patients' questions and concerns.						

The next set of questions asks about the time period in which a patient first enters into care at the [Treatment Center].

Screening, Assessment and Treatment Services						
	Strongly disagree	Disagree	Agree	Strongly agree	Do not know	
Soon after a patient enters care at the [Treatment Center], a member of the [Treatment Center] staff asks him/her about the following:						
78. Personal strengths.						
79. Cultural background.						
80. Social supports in the family and the community						
81. Current level of danger from other people (e.g. restraining orders, history of domestic violence, threats from others).						
82. History of physical, emotional, or sexual abuse and neglect as a child or adolescent						
83. History of physical, emotional, or sexual abuse and neglect by an intimate partner/spouse						
84. History of combat violence						
85. History of experiencing other community-based violence						
86. History of loss						
87. History of homelessness						
88. Trauma related to learning their HIV diagnosis						
89. Previous head injury.						
90. Quality of relationship with child or children (i.e. caregiver/child attachment)						
91. Children's achievement of developmental tasks.						
92. History of mental health issues.						
93. History of substance abuse						
94. History of physical health issues.						

Screening, Assessment and Treatment Services						
	Strongly disagree	Disagree	Agree	Strongly agree	Do not know	
The intake Assessment Process						
95. There are private, confidential spaces available to conduct intake assessments.						
96. The [Treatment Center] informs patients about why these questions are being asked.						
97. The [Treatment Center] informs patients about what will be shared with others and why.						
98. Throughout the initial assessment process, the [Treatment Center] staff observes patients on how they are doing and responds appropriately (e.g., takes breaks).						
99. The [Treatment Center] provides a translator for the assessment process if needed.						
100. The intake results are shared with the patient's assigned HIV care provider						
101. The patient's HIV care provider reviews the results of the initial intake with the patient.						
Intake Assessment Follow-up						
102. Based on the intake assessment, patients are referred for specific services as necessary.						
103. Re-assessments about trauma (i.e. violence, loss, homelessness) are done at least annually.						
104. The [Treatment Center] seeks patient consent whenever it is necessary to speak with a new provider.						
Developing Goals and Plans						
105. Staff collaborates with patients in setting their goals.						
106. Patient goals are reviewed and updated regularly.						
107. Before leaving the program, staff work with patients to develop a plan to address potential safety issues						
108. Before leaving the program, staff work with patients to develop a plan to address future service needs related to trauma.						
Offering Services and Trauma-Specific Interventions						
109. The [Treatment Center] provides opportunities for care coordination for						

services not provided within that organization.						
110. The [Treatment Center] educates patients about traumatic stress and triggers.						
111. The [Treatment Center] has access to a clinician with expertise in trauma and trauma-related interventions (on-staff or available for regular consultation).						
112. The [Treatment Center] provides opportunities for patients to receive a variety of services (e.g., housing, employment, legal and educational advocacy, and health, mental health and substance abuse services)						
113. When mental health services are needed (i.e. individual therapy, group therapy and/or family therapy), the [Treatment Center] refers patients to counseling.						
114. The [Treatment Center] provides opportunities for patients to express themselves in creative in nonverbal ways (i.e. art, theater, dance, movement, music).						
Safety and Crisis Prevention Planning						
115. Written safety plans (i.e. what a patient and staff members will do if the patient feels threatened by another person outside of the [Treatment Center] are incorporated into patients' individual goals and plans.						
116. Each patient has an individualized written crisis prevention plan (i.e. for how to help manage stress and feel supported) which includes a list of triggers, strategies and responses which are helpful and those that are not helpful and a list of persons the patient can go to for support.						

What (if anything) would you like to add about how patients are asked about personal histories of trauma by [Treatment Center] staff?

_____
_____
_____

What (if anything) would you like to add about how patients are offered support services and trauma-specific interventions at the [Treatment Center]?

_____
_____
_____

What works well? What does not? Are staff prepared to screen, assess, and provide or refer patients for treatment of trauma? What would make it easier?

_____
_____
_____

Engagement and Involvement						
	Strongly disagree	Disagree	Agree	Strongly agree	Do not know	
117. The organization reviews rules, rights, and grievance procedures with patients regularly.						
118. Patients are informed about how the [Treatment Center] responds to personal crises (i.e. suicidal statements, violent behavior and mandatory reports).						
119. Patients' rights are posted in places that are visible (i.e. room checks, grievance policies, mandatory reporting rules).						
120. Materials are posted about traumatic stress (i.e. what it is, how it impacts people, and available trauma-specifics resources).						
121. The [Treatment Center] has regularly scheduled procedures and opportunities for patients to provide input						
122. The [Treatment Center] has effective policies in place to handle any changes in schedules.						
123. The [Treatment Center] is flexible with procedures if needed, based on individual patient circumstances.						
124. Patients are given opportunities to evaluate the [Treatment Center] and offer their suggestions for improvement in anonymous and/or confidential ways (i.e. suggestion boxes, regular satisfaction surveys, meetings focused on necessary improvements, etc.)						
125. The [Treatment Center] recruits patients to serve in an advisory capacity.						
126. Patients are invited to share their thoughts, ideas and experiences with the [Treatment Center].						
127. Patients have opportunities to become involved in the development of [Treatment Center] activities.						
128. Patients are involved in providing services (i.e. peer-run support groups, educational, and therapeutic groups.)						

What (if anything) would you like to add about involving patients in policies and decision making at the [Treatment Center]?

_____
_____
_____

What are the strengths of the [Treatment Center] in this area? How could things be improved?

_____
_____
_____

Cross-sector Collaboration						
	Strongly disagree	Disagree	Agree	Strongly agree	Do not know	
129. Policies and procedures encourage providers and staff to have regular contact (with consent of the patient) with other [Treatment Center] providers who serve the same patient.						
130. Care management that integrates substance abuse, mental health, and violence/trauma services is available.						
131. Multi-disciplinary teams can be consulted to address service plan difficulties.						
132. Staff can link patients to [Treatment Center]-based mental health services without difficulty.						
133. Staff can link patients to [Treatment Center]-based substance abuse services without difficulty.						
134. Staff can link patients to [Treatment Center]-based legal services without difficulty.						
135. Staff can link patients to [Treatment Center] based social work and case management services without difficulty.						
136. Staff can link patients to [Treatment Center]-based organizations that provide housing and shelter without difficulty.						
137. Staff can link patients to [Treatment Center]-based spiritual services without difficulty.						
138. Staff can link patients with community-based domestic violence organizations and shelters without difficulty.						
139. Staff can link patients with community-based domestic violence organizations						

and shelters without difficulty regardless of the patient's gender.						
140. Staff can link patients with community-based domestic violence organizations and shelters without difficulty regardless of the patient's sexual orientation.						
141. Staff can link patients and/or patients' caretakers with community-based organizations that provide support for children who have experienced trauma without difficulty.						

What (if anything) would you like to add about cross-sector collaboration at the [Treatment Center]?

_____
_____
_____

What are the strengths of the [Treatment Center]in creating cross-sector collaboration? How could things be improved?

_____
_____
_____

What (if anything) would you like to add about cross-sector collaboration between the [Treatment Center] and other community-based organizations that provide trauma support?

_____
_____
_____

APPENDIX 3: In-Depth Interview Guide

Qualitative Guide: Staff/Provider

*Study ID*_____
*Date:*_____

Introduction:
Hello, my name is _____. I'm a Research Assistant for the _____ Study. *Trauma-informed services take into account an understanding of trauma in all aspects of service delivery and place priority on the individual's safety, choice, and control. Such services create a treatment culture of nonviolence, learning, and collaboration*

There are many things that health practitioners can do in day-to-day practice that promote a safe environment for people who have experienced trauma, but there are three things that are particularly important. The first, most important thing you can do is to acknowledge the devastating impact of trauma on human development and capacity for coping. The second is to ask patients about their experience of trauma and the third is to respond appropriately to disclosure of trauma.

We're interested in understanding the ways in which the [Treatment Center] provides trauma informed services. We are also hoping to identify places that the [Treatment Center] could become more trauma-informed, but in a manner that fits into the natural structure and processes of the Center.

I'm going to ask you some general questions first about how some practices and services are provided at the [Treatment Center], and then ask later about specific practices related to trauma. I'm going to record our conversation in order to best capture your responses, but no identifying information will be included on the recording.

Ok, let's get started.

Screening/Assessment: Often agencies use screening forms or other procedures to help them identify experiences or needs that their patients might have (for example, screening for domestic violence or intake assessments or even standard questions providers generally ask patients during their visits). Can you describe a screening or assessment procedure that is performed at [Treatment Center]?

What is that process like?

Who does the screening/assessment?

What is your evaluation of the success of this screening/assessment process at [Treatment Center]?

What makes it so good (or poor)?

How do you think it could be improved?

When screening/assessment goes well, what makes that so?

When it goes poorly, what contributes to that?

Are screeners and assessment instruments viewed as valuable tools by staff and providers here? Why/why not?

Referrals (internal): Referrals for other types of care can occur when screeners/assessments identify a need for additional services. Can you describe how referrals are handled when a staff member identifies a patient is in need of other services that are available at the [Treatment Center] (i.e., internal referral). Can you describe the internal referral process for patients at [Treatment Center]?

What staff or providers are involved with the referral process?

What is your evaluation of the success of the internal referral process at [Treatment Center]?

What makes it so good (or poor)?

How do you think it could be improved?

When internal referral goes well, what makes that so?

When it goes poorly, what contributes to that?

Is the internal referral process viewed as valuable process by staff and providers here? Why/why not?

Referrals (external): Can you describe how referrals are handled when a patient is in need of services that ARE NOT available at the [Treatment Center] so they need to go elsewhere for care (i.e., external referral). Can you describe the external referral process for patients at [Treatment Center]?

What staff or providers are involved with the external referral process? What are their roles?

What is your evaluation of the success of the external referral process at [Treatment Center]?

What makes it so good (or poor)?

How do you think it could be improved?

When external referral goes well, what makes that so?

When it goes poorly, what contributes to that?

Is the external referral process viewed as valuable process by staff and providers here? Why/why not?

Training: When new screeners or procedures are introduced to staff and providers, this often entails training.

What do these staff training for new forms or screeners look like?

When training needs are identified for a large portion of your staff, how does [Treatment Center] handle this?

What is the general perception of staff/providers about these trainings?

What types of trainings are viewed as important/valuable to staff/providers? Why?

Can you tell me about a training you had here that you felt was very important/valuable? What made it so?

Can you tell me about a training you had here that you felt was NOT important/valuable? What made it so?

In what ways does the [Treatment Center] get feedback on the needs, satisfaction, and experiences of staff/providers?

How is this feedback used by [Treatment Center]?

If unmet needs or quality improvements are identified by this process, how does the agency go about addressing that need?

Who is involved in the way [Treatment Center] addresses identified staff/provider needs?

***Adopting new practices*:**

When a new practice, like integrating a new screening tool for all patients, is adopted at [Treatment Center], how does the agency role that out? In other words, what does that process look like? [who takes charge, when does it become in effect, how is it communicated?]

How does the agency monitor if it is being performed?

Can you describe a time when [Treatment Center] has implemented a new policy/procedure?

– What made it work?

--What were challenges?

***Trauma-specific questions*.** HIV clinical care guidelines recommending screening for intimate partner violence and domestic violence, but that clinics and staff are often strapped for resources and find such recommendations difficult to implement Specific practices that are included in trauma-informed approaches to care, that are consistent with HIV Clinical Care guidelines Include things like intimate partner abuse/violence screening, patient support groups for victims of violence, or linking individuals to trauma-specific mental health services should they wish to take that path to facilitate recovery.

-How are these trauma-specific practices incorporated into the [Treatment Center] ongoing operations?

For instance, when trauma screening (like screening for intimate partner violence) is done, how does that happen now? Is it like this across [Treatment Center] services?

Are all patients screened? (If no, why not?)

When trauma-related needs are identified via screening, what happens next?

Is trauma screening available and conducted with both men and women?
Are gender-specific trauma services and supports available for both men and women?

-Describe the current capacity at the [Treatment Center] for providing trauma-specific screening for patients (or to increase their trauma specific screening to all patients?)

-Describe the current capacity at the [Treatment Center] for providing trauma-specific treatment on site (or to increase their trauma specific treatment services?)

-Describe the current capacity at the [Treatment Center] for providing referrals to appropriate trauma-specific services (or to enhance their referral process for trauma-specific services)? If so, where does the Center refer to for these services?

Please name some people in your organization who are likely to champion (go above and beyond what might be expected) for these practices.

-Should enhancing trauma-related practices and services be a priority for the [Treatment Center] in the coming years?

If yes, why? If not, why not?

Do you think most staff/providers/administrators at [Treatment Center] feel like you about this?

Should providing a clinic-wide trauma training for staff and providers be a priority for the [Treatment Center] in the coming years?

If yes, why? If not, why not?

Do you think most staff/providers/administrators at [Treatment Center] feel like you about this?

APPENDIX 4: Qualitative Interview Codebook

Trauma Informed Care Codebook -Provider			
Code Name	**Definition**	**Example Quote**	**Notes**
1.SCREENING			
1.a. Topics	Content that is covered in the screening.	"The screening tool asks all type of questions um from the domestic violence to you know um I have one here um it asks…questions um…they talk about gaps in care, um, whether they are, you know, having issues with their medical care, adherence to medication, and things of that sort. Um, it asks about education, asks about um social, social needs, uh, housing, um, let's see what else…mental health, um, it asks about your current um treatment adherence weather you have any legal issues. It asks about um like um sexual experiences, problems, cultural beliefs, and the whole nine. "[Staff, Social Services]	
1.b. Process	Any description of process by which patients are screened. This can include procedures used to screen patients, methods of documenting screening decisions, when the screenings are conducted, how the screenings are administered to patients, and how screening results/decisions are communicated to staff/providers/patients.	"Um so there's a nurse who asks um basically a series of questions and um depending on the results then there may be additional questions or pieces of data that are requested or obtained from previous medical records and then those are, that the note of that interaction for that particular screening is documented in the medical record um with relatively set template." [Provider, Family Clinic]	

1.c. Facilitators	Strengths, successes, or facilitators of the screening process.	"I mean honestly the situations that I've seen things work well is when people, it's it's not about the form. It's much more about um a team coming together and identifying that this patient's gonna really need a lot of help, and working together as a team that often comprises of provider uh of the sometimes involves like a peer counselor or a patient navigator, um oftentimes a person from our center for wellbeing which is our mental health services, um … so it ends up kinda coming much more together it's just a multidisciplinary effort and discussion, um, rather than you know a score on an assessment that would trigger a certain service…" [Administrator]	What do the screening tools do well? What factors contribute to their success?
1.d. Barriers	Weaknesses or barriers of the screening process.	"I do believe that some still fall through the cracks. Um, especially, um you know, when you have such a concrete type of question, then, you know, it;s like I said, it's either yes or no. There's no room for wiggle room there at all, so." [Staff] "Um, I know for me personally, I don't have access to the ones that the health educators use, um, downstairs" [Staff, Education]	
1.e. Improvements	Respondent's evaluation of what improvements that should be made to the screening process.	"I think, too, something that could be improved is being able to kind of explain why we ask these questions a little bit more than "this just gets – lets me have an idea about who you are," you know, 'cause I don't think that a patient wants to be known by their trauma or known by their – you know, whatever they've experienced. Um, and then I think – so that would be something I would encourage." [Staff, Education]	
2. REFERRALS			
2.a. Internal Referrals			Referrals for services that are available within the [Treatment Center].
2.a.i. Process	Description of process by which internal referrals are made.	"Um, it depends on the referral but for so for internal clinical referrals are usually um if I were to have a patient that needs a clinical referral for something that's available within the building, then I would fill out the, the applicable referral form, and request that an	

		appointment be scheduled by the um person who checks the patient out the PAR…" [Provider, Family Clinic]	
2.a.ii. Facilitators	What are the strengths, successes, or facilitators associated with internal referrals.	"Um, so in an ideal world, before we get super busy, those referrals are being made first thing in the morning, when it's a little quieter, you know, or even at the end of the day, when we have like a half hour left of the day, sometimes, um, people are just exhausted and they're like, "I can't do any more." But I think that if we did first thing in the morning and first thing in the – or last thing in the afternoon, that would make things a little bit smoother." [Staff, Education]	
2.a.iii. Barriers	What are the weaknesses and barriers associated with internal referrals.	"There's a lot of places where the problem could happen that prevents the appointment from being scheduled and given to the patient. From, I think I told you from most of the early stage thing, like the, the paper never makes it to the scheduler, um, the scheduler isn't there when the patient checks out and someone else is scheduling it, um, the provider forgets to leave the paper with the patient or scheduler, the provider forgets to um tell the scheduler that they need to schedule. "[Provider, Family Clinic]	
2.a.iv. Improvements	Perceived improvements that should be made to the internal referral process.	"I do think that if there was a particular person whose role was to handle referrals across the board, um, then that person would identify if and that person had scheduling capabilities across the [Health System] then that would help tremendously." [Provider, Family Clinic]	
2.b. External Referrals			Referrals for services that are not available at [Treatment Center].
2.b.i. Process	Description of process by which external referrals are made.	"...non-clinical referrals like for case management or housing for example, um, those are a little more complicated. I usually will um tell sort of give the patient a phone number for the case manager and tell them to stop by the person's office." [Provider, Family Clinic]	
2.b.ii. Facilitators	What are the strengths,	"So really, a lot of times it's all about building	

	facilitators, and successes associated with external referrals	those external – or internal, too – um, relationships with people, and people who understand the population and what can be hindering to a p-, um, to a person and whatnot. So that, to me, is, like, what works really, really well, is people knowing the system and also being able to help the patient navigate the system well“ [Staff, Education]	
2.b.iii. Barriers	What are the weaknesses and barriers associated with external referrals.	“The limitations are, um, insurance coverage versus non-insurance coverage, because our catchment area is larger than [Healthcare System] Hospital's catchment area is. Um, there are some of our folks who would go to [Healthcare System] and get charged a vastly different price because they're not a DeKalb or [Healthcare System] resident if they're uninsured, so that's gonna be a limitation.” [Provider, Colposcopy]	
2.b.iv. Improvements	Perceived improvements that should be made to the external referral process.	“Um, well, I think that it would be nice if we had a system to where we’re able to, um, send them electronically.” [Staff]	
3. TRAINING			
3.a. Process	Process for providing training to staff, such as training sessions casual conversations or meetings.	“We did have somebody to come over and, um, we had a, um, about like a hour training, and, um, the gentleman went over how to send faxes, and what to look for when you’re receiving faxes. So they – it, it was formal, I guess, or semiformal, semi, and you know, he just described what was going on” [Staff]	
3.b. Importance 3.b.i. Important 3.b.ii. Not important	<u>Important:</u> Training content or formats that staff/providers view as useful, important, or valuable to their work environment. <u>Not Important:</u> Training content or formats that staff/providers view as **NOT** useful, important, or valuable to their work environment.	<u>Important:</u> “I know the acronym was PACE, but it was about, you know, kind of managing clients who are very challenging or kind of out of control, and, um, pieces of it I thought were very good, very basic, um, but we were broken up into – we weren't broken out by, um, profession. We were sort of all put together, which I just thought was a really good experience from the standpoint that you got to spend time with people who work with the clinic that maybe you don't know as well” [Provider, Colposcopy] <u>Not Important:</u> “So I don’t – so it’s not valuable yet because I’m not – I’m still not using it. I’m using the fax machine at the Center for Wellbeing, but, um, you know,	

		maybe when, when it's my turn to get mine, ah, write fax, um, information, then, ah, it may become valuable at that time to me...But right now I may need another little training when that time comes, so." [Staff]	
3.c.Facilitators	Any mention of factors that facilitate training process.	"Um, usually, you know, late in the afternoon, and the first group will go probably from like 2:00 until 3:00, and the second group will go, you know, um, from 3:15 to 4:15. Usually works because they usually have it on the second or fourth Wednesday when we, you know, don't have scheduled patients after 12:00." [Staff]	
3.d. Barriers	Any mention of factors that serve as barriers or hinder the training process.	"I have to say I cannot remember at all the agencies or the speakers, um, so I think any kind of didactic lecture is not gonna be as effective as something that's more interactive and has a sense that the audience." [Provider, Colposcopy]	
4. FEEDBACK			
4.a. Providing Feedback	Description of the systematic processes, formal or informal, by which information is collected on employee satisfaction, need, and experiences.	"I know there's this employee engagement survey that comes from [Healthcare System] and that's, um, that's really using – it's, you know, this "anonymous" survey. Who knows if it's really anonymous, and, um, you're really supposed to be, "Rah, rah, team,"" [Provider, Colposcopy]	
4.b. Responding to Feedback	How staff feedback is addressed and who is responsible for implementing changes.	"And they asked us, you know, things like, "When you think of your employees what do you think about? When you think of your supervisor what do you think about? You know, if you could be CEO for a day, what, you know, what would you do?" They just asked all these different questions. But then they, you know, compiled all the answers, and based upon all the answers that they, you know, received, then that they came up with, you know, our new standards of, you know, care, so.." [Staff]	
4.c. Facilitators	What factors facilitate the successful identification and response to employee needs and feedback.	"...so, far in my experience there's been receptiveness to problem-solve, um especially when it's brought up you know with a little bit of sort of support and evidenced by the providers or a group of staff." [Provider, Family Clinic]	

4.d. Barriers	What factors hinder the process of identifying and responding to employee needs and feedback	"But I also feel like she's kind of trapped and that there just isn't, um, I think she just doesn't feel like she can get any place with administration, which I think is probably really common in many organizations..." [Provider, Colposcopy]	
5. ADOPTING PRACTICES			
5.a. Process	Formal: Systematic ways, both formal or informal, that the [Treatment Center] uses to adopt new practices. This also includes ways in which the new practices are communicated to staff.	Formal: "Um, so usually it's there's, there's some trainings, um and they it involves trainings at different levels of staff, so I can only speak of the ones that (inaudible) to the providers, which usually happens at the provider meetings, so there may be kinda like a overview that's given um and I think that those happen at all different levels during their own, um sort of uh the the periods where it's most usually addressed. Um, and then there's you know sort of like a date that it's gonna be rolled out, and it's a pilot, pilot period" [Provider, Family Clinic]	
5.b. Types	The types of new practices adopted.	"We used to get MARTA cards to give to patients, uh, who needed a MARTA card either to get home or to come back or that kinda thing. So now they don't give us the MARTA cards, but we have to fill out this form, and then the client has to take it downstairs and give it to the information person at – on the first floor in order to get the MARTA card. So that was a big change not just for the providers, but for the clients also." [Provider, Center for Wellbeing]	
5.c. Monitoring	How the performance of new practices are monitored.	"Well, if you don't do your notes within 24 hours, they send you a little *[laughs]* – they'll send you a, um, notice, um, because our notes need to be in within 24 hours, preferably the same day" [Provider, Center for Wellbeing]	
5.d. Facilitators	The strengths, successes, and facilitators of adopting new practices.	"Um, some things were really well implemented and we had, um, super users, so folks who had lots of – were providers and nurses who had lots of extra training in how to use the EMR so that they could be sort of, um, peer experts that we could go to." [Provider, Colposcopy]	
5.e. Barriers	The weaknesses, failures, or	"But it's just another step that we have to do	

	barriers of adopting new practices.	and the clients have to do." [Provider, Center for Wellbeing]	
6. TRAUMA INFORMED CARE			
6.a. Gender-specific Care	Description of process, protocols, or methods used to deliver gender-specific care. This can also include the lack of gender specific care.	"Hm, I don't know if there's a trauma group for men. I don't think so. I know there is for women. Um. But I don't – I don't think so. I don't think there's one for men" [Provider, Center for Wellbeing]	
6.b. Barriers	Comments describing barriers, or shortcomings of the trauma informed care process.	"Um, again, it's that piece about well, sometimes you're just making someone feel even more like they're a fish in a tree by identifying that there's something going on, and we also have a huge number of international patients and refugee folks who are like telling me I'm to go to mental health is like telling them I can cure you by putting a brick on your head and having you walk around with it. Like it's such a foreign concept that it just doesn't – there isn't even language to have that conversation." [Provider, Colposcopy]	
6.c. Facilitators	The strengths, successes, and facilitators of the trauma informed care process.	"We had a training not too long ago on the services that are offered in the community with things. And there was somebody from, um, the domestic Violence Resource Center, Crisis Resource Center, DCAB. And she gave us more information on things that we can do a lot of times we only know of, like, stuff for women." [Staff, Education]	
6.d. Screening	Any comments related to the processes for conducting trauma specific screening. This can include formal mechanisms, defined as using an instrument/tool or protocol to screen patients. Or informal defined as screening based on the discretion of the medical professional.	"We have a list of questions. I actually have it here. We have a list of questions. Um, and they kinda… go into medical, um, nutrition, um, social, education, housing, mental health, domestic violence, and then actual physical violence, threatened or including fear, emotional abuse, attacks, self-esteem, sexual coercion of rape, so it, it goes into a lot like a lot of detail like of of the questions, um, so…" [Staff, Pediatrics]	

6.e. Referral 6.e.i. Internal 6.e.ii. External	Internal: Any comments related to referrals made to trauma specific services within [Treatment Center]. External: Any comments related referrals to trauma specific services outside of [Treatment Center].	Internal: "Like I said, it depends on the level of the trauma...And, ah, many people just call the, um, clinician on call." [Staff] External: "Um, not at [Treatment Center]. I mean, like, well, we can offer Center for Well-Being, you know, so they can talk to a therapist individually. As a group no. Um, but we can link them to, like, main [hospital]. Who has support services for domestic violence and interpersonal violence." [Staff, Education]	
6.f. Resources	Examples of trauma specific resources that are available to patients. This can also include comments about resources that are not available.	"Um, but we don't have a support group service here for domestic violence. There's some at main [Hospital], so, um, we'll send patients there. But that's assuming that other people know about those groups." [Staff, Education]	
6.g. Capacity 6.g.i. Screening 6.g.ii. Referrals 6.g.iii. Services	Screening: Perceived ability to provide trauma specific screening at [Treatment Center]. Referrals: Perceived ability to provide trauma specific referrals at [Treatment Center]. Services: Perceived ability to provide trauma specific services and treatment at [Treatment Center].	Screening: "I think it – it's hard becau-, I think it could be improved. However, because of the nature of trauma itself, um, some folks don't want to do that during an initial screening as they're signing up for, uh, services here. They're not ready. Um, some are. I don't know what's on that initial, um, questionnaire that they ask. I guess it could be on there. I'm not sure." [Provider, Center for Wellbeing] Referrals: "Um, there really isn't. There isn't a – there isn't a, to my knowledge, a protocol or anything for referring someone for specific trauma-related issues. No, it just – there is no – like, [Treatment Center] has a trauma group. We had talked about it. And matter of fact, Rachel and I may be doing something like that. Um, but right now, no." [Provider, Center for Wellbeing] Services: "Um, I think that we probably have some very good therapists who help with that. I don't know that we have a trauma-specific group. I truly think that almost all of our patients here, at least since I see mostly women, at least the women, have all experienced trauma." [Provider, Colposcopy]	
6.h.TIC Personal Value 6.h.i. Support 6.h.ii. Non-support	Support: Any comments related to the respondent's support of TIC or support of trauma informed care training at [Treatment	Support: "It would be wonderful …Because I believe that most of our clients have experienced some kinda trauma, even if it's just being diagnosed with HIV." [Provider, Center for Wellbeing]	

	Center]. Non-Support: Any comments related to the respondent's non-support of TIC or support of trauma informed care training at [Treatment Center].	Non-Support: "I personally think so, um, but I think there's so much coming down the pike that, um, that kind of compassionate informed training may take a back seat 'cause we just don't know what's going to happen with health care and what we're going to need to respond to with our, you know, [laughs] with our nonviolent boxing gloves on." [Provider, Colposcopy]	
6.i. TIC Climate 6.i.i. Support 6.i.ii.Non-support	Support: Perception that TIC and or clinic wide training is supported by other providers and staff. Non-support: Perception that TIC and or clinic wide training is not supported by other providers and staff.	Support: "I think most people do. Most people do, yes. Mmhmm. Cause we have, like I said, a great group of people here who really care about their job that's being done. Uh, it's funny, when … when we fight in here internally we usually don't fight about the goal, we fight about the way we're gonna get to the goal. But all of us still trying to get to the same place, we just have different ways of of getting there, so the fight is usually how we get there" [Staff, Social Services] Non-support: "I don't know. I think, um, again, I think because trauma is kind of underappreciated by most people interested he clinic, staff wise, um, but I think the providers would really, like, would agree with me. I'm not sure if the administration would per se. Um, again, just because their perspective on everything is so different and limited" [Provider, Main Clinic]	
6.j. Champion	People in the organization that will go above and beyond what is expected for these practices	"Uh, I would put Dr. [name]. She's one of our clinicians. One of the physicians downstairs. Um, [name] does a great job, um, [name], I don't know if she's still here, but she does a really good job. Dr. [name] who just left. Um, I think he might have trained in that, [name] is trained in it, um, …I think I don't know if [name] has training, but I know he's dealt with people that have trauma." [Staff, Center for Well Being]	
6.k. Improvements	Perceived improvements that could be made to the trauma informed care process (screening, referrals, or treatment services)	"I think, um, we need a um a sexual abuse either education or support group. The reason why I said education for the 18-23 year olds, they don't like groups. They feel groups stereotype them. They're more apt to come to a class about trauma then go to a group about trauma" [Staff, Pediatrics]	

7.PATIENT ENGAGEMENT	Any comments related to ways patients can influence their care. Include any comments related to patient centered care or patient goal setting.	"Uh, when we see that we're able to identify a goal with the patient. We're able to see well we can help solve whatever uh issue that they're going through." [Staff, Social Services]	
8. COLLABORATION	Any comments related to how staff work together to facilitate the management of patient care.	"It's much more about um a team coming together and identifying that this patient's gonna really need a lot of help, and working together as a team that often comprises of provider uh of the sometimes involves like a peer counselor or a patient navigator, um oftentimes a person from our center for wellbeing which is our mental health services, um … so it ends up kinda coming much more together it's just a multidisciplinary effort and discussion, um, rather than you know a score on an assessment that would trigger a certain service being…cause I honestly as a provider and even as the associate medical director I don't necessarily see those processes work." [Administrator]	
9. PROFESSIONAL JUDGEMENT	Comments that reveal or explain the professional judgement or discretionary nature of decision-making by any professional, including the limits of standardized instruments and the importance of holistic or contextual knowledge of the patients.	"Yeah the patient, the patient sc,or the behavior that a patient shows, lets the staff know that this person may need something else. SO either by voicing it, or showing it. That they need it. Yeah, Cause we've had some patients in here who who would never say they have a mental health issue and yet they're screening and hollering down the halls, something's going on with you, so we need to talk about it. You know, uh." [Staff, Social Services]	