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Bernalillo County Behavioral Health Initiative: Adverse Childhood Experiences Outcome Evaluation

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INTRODUCTION

The Bernalillo County Behavioral Health Initiative (BHI) seeks to provide a "strong continuum of care for individuals living with behavioral health conditions, along with their families" (Bernalillo County, 2023). Behavioral health conditions can refer to "mental health and substance use disorders, life stressors and crises, and stress-related physical symptoms" (AMA, 2022). The Behavioral Health Initiative began in February 2015 when the Bernalillo County Commission (BCC) and voters approved a new gross-receipts tax expected to generate between $17 and $20 million each year to develop a unified and coordinated behavioral health system in the County and surrounding areas (CPI, 2015). The initial structure of BHI's continuum of care programming took form in April 2015, when the Bernalillo County Commission contracted Community Partners, Inc. (CPI) to develop a business plan for a regional, cohesive system of behavioral health care. CPI proposed behavioral health programs in several categories, which were then vetted and approved for funding by the Albuquerque Bernalillo County Government Commission. One of these categories is "Prevention, Intervention, Treatment and Harm Reduction Services," which includes programs to address adverse childhood experiences (ACEs).

ACEs refer to traumatic events experienced as a child or youth (less than 18 years old), such as being the victim of physical, emotional, and sexual abuse. Through complex and not fully understood psychological processes, these adverse experiences often produce behavioral health problems that manifest throughout the lifetime. These behavioral health problems include psychological conditions like depression and anxiety and risky behaviors like smoking, drug and alcohol use, risky sexual activities, self-harm, and interpersonal violence (Felitti et al., 1998). These behavioral issues, in turn, lead to negative life outcomes, like low income, unemployment, lower educational achievement, a range of physical health problems, and heightened mortality (Brown et al., 2009; Metzler et al., 2017). Perhaps most tragically, these behavioral health outcomes increase the risk of ACEs for one's children, thus creating a vicious cycle of intergenerational behavioral health issues. ACEs are prevalent in the United States, with an estimated 64% of adults in the United States having experienced one or more ACEs as minors (Swedo, 2023). Due to their prevalence and negative effects, preventing and treating ACEs is a critical public health concern.

BHI initially funded eight providers to address the problem of ACEs in Bernalillo County beginning in July 2017 for a four-year funding cycle. Funds were to be used for "the full continuum of services including primary prevention, identification, early intervention, support and treatment, harm reduction, outreach, and services in children's homes and within the community" (Bernalillo County, 2021). Additionally, BHI contracted with the Institute for Social Research (ISR) at the University of New Mexico (UNM) to evaluate these programs in terms of their design, implementation, and outcomes.

For the initial four-year funding cycle, ISR conducted a process evaluation of each of the eight ACEs programs. The goal of a process evaluation is to assess (1) whether a program has a logical design based on evidence-based practices, and (2) whether it is faithfully implementing that

design in practice. This is important to assess for new programs to improve quality and consistency of service delivery, and to establish a robust set of procedures that can be evaluated in terms of their outcomes moving forward. Ultimately, ISR was only able to complete a process evaluation for four out of the eight initially funded ACEs programs, as the other four either did not actively participate in ISR's evaluation or else opted not to recontract with Bernalillo County. The four programs that ISR completed evaluations for were All Faiths, Centro Sávila, PB&J, and New Day, all of which are community-based providers.

While there was considerable variation among these programs, the ISR report concluded that (1) each of the programs had a logical design that incorporated evidence-based practices in their stated plan of service provisioning, and, (2) based on service data, each program appeared to be generally providing services of the intended type and frequency to the intended target population (Tonigan et al., 2021). Two of the programs, All Faiths and PB&J, also provided preliminary outcome data, which showed statistically significant improvements in several client outcomes of interest, such as parenting attitudes among adult clients. However, reliable outcome data was missing for most of their clients. The other two providers, Centro Sávila and New Day, collected no such outcome measures. In anticipation of a future outcome evaluation, ISR recommended that each program implement validated assessments at intake and discharge for all clients (Tonigan et al., 2021, p. 100).

For the subsequent 4-year funding cycle beginning in July 2021, BHI re-contracted with each of the four ACEs providers to continue implementing their programs. BHI also re-contracted with ISR to conduct outcome evaluations for each program. The objective of an outcome evaluation is to assess whether a program is producing the desired changes in the clients it serves. To assess this for each of the four BHI ACEs programs, we set out to answer three related research questions:

1) **What are the goals of the program and what is the plan for achieving those goals?**
2) **To what extent is this plan being implemented in actual program activities?**
3) **To what extent are program activities producing the intended outcomes?**

This report presents the results of ISR's outcome evaluations of the four community-based ACEs programs: All Faiths, Centro Sávila, New Day, and PB&J. The remainder of this report is organized into 4 sections:

1. A Literature Review section, which provides important background on the problem of ACEs and evidence-based strategies for addressing the problem,
2. A Study Design and Methodology section, which describes what data we collected and how we analyzed it to evaluate each program,
3. A Study Findings section, which presents the results of our analyses for each program,
4. A Conclusions section, which summarizes our main findings.

LITERATURE REVIEW

The Problem of ACEs

Adverse Childhood Experiences (ACEs) refer to traumatic events experienced from birth to the age of 18, which place one at higher risk for a range of negative outcomes later in life. ACEs encompass multiple categories of traumatic events, including experiencing physical abuse, psychological abuse, sexual abuse, neglect, financial problems, food insecurity, and homelessness; witnessing domestic violence, drug and alcohol abuse, or mental illness in the home; having a household member die; having divorced or incarcerated parents; and witnessing or experiencing violent crime in the community (Choi et al., 2020; Felitti et al., 1998; Reidy et al., 2021).

ACEs are widespread among the United States population. The Centers for Disease Control and Prevention (CDC) estimates that around 64% of adults experienced one or more ACEs as minors and around 17% experienced four or more (Swedo, 2023). The most prevalent categories of ACEs reported were emotional abuse, parental divorce, and substance abuse in the home. ACEs are more prevalent among women than men and among American Indian/Alaskan Natives and multiracial individuals than other racial groups.

ACEs are associated with negative health outcomes and diminished economic and social prospects later in life. This relationship is "grade-dosed", meaning the more ACEs someone has, the more negative outcomes they are likely to suffer. Many of these negative outcomes pertain to behavioral health, like suffering from psychological problems (e.g., anxiety and depression) and engaging in risky behaviors like substance use, smoking, physical inactivity, self-harm and suicide, interpersonal violence, and sexual risk taking (Felitti et al., 1998; Hughes et al., 2017; Merrick et al., 2019). These behaviors, in turn, lead to a heightened risk for various physical health problems, including obesity, diabetes, heart disease, cancer, chronic lung disease, liver disease, bone fractures, and sexually transmitted diseases. Brown et al., (2009) found that, in a sample of 17,337 adults, those with 6 or more ACEs died on average around 20 years earlier than those with no ACEs. Regarding socio-economic outcomes, individuals with more ACEs statistically have lower lifetime academic achievement, employment, and income (Metzler et al., 2017).

The costs of these negative outcomes are significant, both for individuals and society at large. Peterson et al., (2018) estimate that child maltreatment alone (physical abuse, sexual abuse, psychological abuse, and neglect), which represents only a subset of all ACEs categories, imposes a lifetime economic cost of $830,928 per victim (in 2015 USD), which amounts to a total of around $2 trillion dollars for the United States. Among a sample of European countries, Hughes et al., (2021) estimated the costs of ACEs totaled between 1.1-6% of a country's gross domestic product. Given the costs on individuals and society, it is in the public interests to develop and implement interventions to address the problem of ACEs.

Interventions to Address ACEs

Interventions to address ACEs can be divided conceptually into prevention and mitigation approaches. Prevention approaches target the causes of ACEs to reduce their future incidence. Treatment interventions focus on mitigating the impact of existing ACEs on individuals' life outcomes.

Preventing ACEs

As with any social-behavioral phenomenon, the causes of ACEs are complex and where or when they will occur cannot be predicted with certainty. However, it is possible to identify risk factors that increase the likelihood of experiencing ACEs. The CDC lists a range of family and community level risk factors for ACEs (CDC, 2023).

Many ACE risk factors deal with economic stressors, such as having low household income and educational attainment, or living in a community with high levels of poverty, unemployment, food insecurity, and limited economic opportunity (CDC, 2023; Swedo, 2023). Closely related are factors associated with a lack of parental supports, as well as factors that place greater demands on parents' resources. For example, families who are isolated from others who could provide support and who live in neighborhoods with diminished social support networks are at higher risk for ACEs, as are young caregivers, single parents, and families who have children with special needs. The CDC recommends a range of interventions to prevent ACEs by strengthening economic and social supports to parents and communities. These include things like subsidized childcare, subsidized housing, tax credits for families, SNAP, child support payments, and family friendly work-places (e.g., paid leave, flexible work schedules, livable wages) (Fortson et al., 2016, pp. 13–14).

Other risk factors for ACEs pertain to insufficient knowledge and/or inappropriate cultural attitudes around healthy parenting practices. Families with parents who use spanking and other forms of corporal punishment for discipline, who view violence as an appropriate means of settling disputes, and who engage in minimal monitoring and supervision of children are at higher risk of ACEs (CDC, 2023). Many of these attitudes and practices are likely learned behaviors, as families with parents who were themselves abused or neglected as children is a key risk factor for ACEs. Evidence-based preventative interventions targeting parenting attitudes include parenting skills classes, which teach parents about developmentally appropriate child behavior, techniques for communicating with children, managing problematic behaviors, and appropriate methods of discipline (CDC, 2019, p. 17; Gubbels et al., 2019). The CDC also recommends community scale approaches targeting parenting norms and attitudes, such as educational campaigns and laws to prevent corporal punishment (CDC, 2019, p. 13).

Lastly, several family level risk factors deal with the behavior of the child and the environment outside the home. For example, children who engage in delinquent behavior and early sexual activity are at higher risk for ACEs, as are children who live in areas with low levels of public

order, high levels of violent crime, high drug and alcohol availability, and limited community activities for youths (e.g., sports leagues). Interventions to target these risk factors include mentoring and after-school programs, which seek to connect youth with adults who can serve as role models and provide guidance to promote academic and employment success (CDC, 2019, p. 19).

Treating ACEs

Treatment interventions seek to mitigate the negative effects of ACEs that people have already experienced. As highlighted previously, ACEs have a grade-dose, or cumulative association with a range of negative life outcomes (Felitti et al., 1998). However, knowing this association exists doesn't offer guidance about how to treat ACEs once they occur. To effectively treat ACEs, a causal model of how ACEs produce negative life outcomes is required.

Scientists broadly agree that children can remember ACEs (Coates, 2016) and that these memories affect neurological and cognitive development (Cross et al., 2017; Read et al., 2014). This may even have an adaptive explanation, as traumatic experiences early in life could signal that the world is hostile, thereby altering the developmental trajectory "toward faster and more reactive responses to threat, less delay of gratification, and other stress adapted traits" (Ellis et al., 2017, p. 564). These stress adapted traits produce internalizing and externalizing behaviors. Internalizing refers to withdrawing into oneself and dissociating from one's emotions, whereas externalizing refers to engaging in aggressive and destructive anti-social behaviors (Sheffler et al., 2019; Zhang & Mersky, 2022). These behavioral issues can persist into adulthood, leading to diminished life possibilities and negative health outcomes (Jones et al., 2018; Morgan et al., 2021). Tragically, these negative adult outcomes place their children at heightened risk of ACEs, thus creating an intergenerational cycle.

There are several approaches to interrupting and reversing the process that leads from ACEs to negative life outcomes. A classic approach is to help individuals process and overcome trauma by talking about it with therapists, often referred to as "talk" therapy, or psychotherapy. One such therapy technique is Trauma Focused Cognitive Behavioral Therapy (TF-CBT). TF-CBT is based on the theory that psychological problems stemming from trauma are reinforced by unhelpful patterns of thought and behavior. Therefore, TF-CBT teaches people to engage in alternative patterns of thought and behavior in order to overcome trauma (APA, 2017; Lorenzo-Luaces et al., 2016). TF-CBT has been shown effective in improving outcomes for children with ACEs and their non-abusive caregivers (Cohen & Mannarino, 2015; Ramirez de Arellano et al., 2014). Motivational interviewing is another evidence-based technique, which has been shown effective in helping individuals to recognize and change problematic behaviors that can be self-reinforcing (Apodaca & Longabaugh, 2009; Bischof et al., 2021).

An alternative treatment to therapy is so-called strength-based approaches. While there is a strong statistical correlation between ACEs and negative life outcomes, some individuals are outliers who have positive life outcomes despite suffering from ACEs. These people are

described as having “resiliency,” which is defined technically as a set of factors that lead individuals to have positive outcomes despite exposure to risk (Masten, 2001). These resiliency factors are usefully grouped into two categories: “assets” which are internal characteristics of the individual, and “resources,” which are external features of one’s environment and social relations. “Assets” associated with resiliency include things like intelligence and effective emotion regulation. External resources include things like adult support, low parental discord, high socio-economic status, effective schools, and safe neighborhoods (Fergus & Zimmerman, 2005; Vanderbilt-Adriance & Shaw, 2008). Strength-based approaches to treating ACEs seek to build these internal and external resiliency factors in individuals exposed to ACEs.

Programs to increase resiliency for young children generally seek to provide a safe, nurturing, and stimulating environment where natural development can hopefully return to a normal trajectory, thanks to the intrinsic resiliency of child development. Interventions to promote such a home environment include early childhood home visiting, parenting skills and family relationship classes (Fortson et al., 2016, p. 25), and parent-child psychotherapy, which aims at improving the relationship between an abusive or neglectful parent and their child (Lieberman & Van Horn, 2009).

Approaches to build resiliency in older children and adolescents may also seek to actively instill specific assets and resources by teaching life skills and providing opportunities to form healthy relationships and become involved in the community. For example, the Positive Youth Development (PYD) program seeks to provide youth with opportunities for leadership, skill building, and sustained connections between youth and adults (Edwards et al., 2007). There is some preliminary evidence that PYD and similar approaches are effective in improving subjective sense of knowledge, skills, autonomy, and social connection, however, evidence for their effectiveness in shaping behavior in desired ways is mixed (Bettinger & Baker, 2014; Chandler et al., 2015; Maslow & Chung, 2013).

In sum, ACEs interventions can be broadly divided into prevention and treatment, with prevention focusing on protecting children and youths from exposure to future ACEs and treatment seeking to mitigate the effects of existing ACEs on life outcomes. In practice, these lines are often blurred by the fact the same intervention can be seen to perform both functions. For instance, interventions to strengthen family functioning can both prevent future ACEs and treat existing ACEs by creating a nurturing home environment. Moreover, due to the intergenerational dynamics around ACEs, effective treatment of individuals with ACEs in the present can help prevent ACEs in their future children.

STUDY DESIGN & METHODOLOGY

To assess whether each of the four ACEs programs was producing its intended outcomes in the clients it serves, we utilized three types of data: program documents, service data, and outcome measures.

Program documents include things like contracts, service manuals for staff, staff job descriptions, blank referral, intake, and discharge forms, and assessment instruments. We reviewed these documents to determine the program's design and implementation plan. A program's design refers to the stated goals of the program and the strategy for achieving those goals. The goals should specify some desired change in a target population (e.g., improving parenting attitudes for families at high risk of ACEs). A strategy should specify some evidence-based intervention for bringing about those changes. The implementation plan refers to the specific set of procedures a program intends to follow to deliver the intended intervention to the intended target population. This includes procedures for outreach, referral, screening for eligibility, induction of new clients, assessing clients' needs, delivering appropriate services, and discharging clients when they complete the program.

Service data includes client level data and monthly performance reports. We analyzed these data to assess whether each program was following the procedures outlined in their program documents. Due to limitations in data quality, we were chiefly interested in assessing whether each program was providing services of the planned type, intensity, and duration to the intended target population. We relied primarily on client level service data, which allows us to match individuals across different datasets. This is important for tracking how individual clients move through the program and assessing the variability in client experiences. Due to IRB requirements, we could only receive de-identified data for minors (i.e., no names, addresses, birth dates or similar data which could be used to ascertain a client's identity). We coordinated with providers prior to receiving data to ensure all such identifiers had been removed and replaced with a confidential client ID number. Monthly performance measures, by contrast, only report on a program's clients in the aggregate, or summary form. Fewer inferences can be drawn from this data, as individual clients cannot be matched across datasets and because these reports typically report on a smaller set of client variables. We primarily used the monthlies to help resolve ambiguities in the interpretation of client level data. When monthlies differed from client level data, we treated the raw, client-level data as authoritative, given that it had undergone fewer analyses and manipulations prior to our receiving it.

Outcome data refers to individual level data that can be used to assess intended changes in the client population. As with client level service data, outcome data had to be de-identified for minors prior to our receiving it. We received several types of outcome data, with differing levels of reliability and interpretability. The lowest quality outcome data we received was self-reported survey data asking clients about their subjective satisfaction with a program or sense of achievement in a program. This data is somewhat useful for assessing general positive

attitudes toward the program, which could be an important indicator of clients' future willingness to engage in behavioral health services. However, caution should be exercised when assessing specific behavioral health outcomes from this data. This is because subjective assessments of change and improvement are unreliable. A more reliable way to measure improvement is to use validated measures that assess client attributes of interest at two points in time: (1) when they are first inducted into the program, and (2) when they finish the program. This is known as a pre- post-test design. It is also critical that outcomes are measured using validated instruments. A validated instrument refers to a survey or assessment that has undergone a rigorous scientific process of development and testing to ensure it measures what it proports to. Each program provided pre- post- assessments, however not all utilized scientifically validated outcome measures.

Limitations

In reporting on program activities and services provided, we are limited by the detail and completeness of the program data we were provided. Apart from the performance metrics listed in providers' contracts, the client level data we collected was essentially service data used by the programs in their normal operations and was not primarily intended for evaluation purposes. When major issues or questions arose in the interpretation of data, we asked providers for clarification, which they were helpful and forthcoming in providing. Still, we often had to rely on our own best judgment. We also generally assumed the data were complete in the inferences we drew, which may not have always been the case.

We were also limited in our analyses of outcome data that was based on unvalidated measures or measures validated for purposes other than assessing outcomes. In these instances, we have reported on the outcomes these data seem to show, but also noted the inherent unreliability of the measures and our low confidence in the inferences we draw from them.

It is important to note that, even when using validated pre- post- outcome measures, observed positive or negative client changes do not provide conclusive evidence of program effectiveness or dysfunction. This is because there is always some degree of measurement error and random chance in the outcome assessment scores. It is, therefore, possible for the scores to randomly improve (or worsen) without there being any real change in the client population. To account for this possibility, we use statistical tests of significance, which assess how often the observed changes would come about by random chance if there were no actual change in the clients. We consider an observed change to be statistically significant if it would come about by random chance less than 5% of the time (denoted by "$a<0.05$" or an "*"). We make note throughout the report if an observed change in an outcome of interest is statistically significant or not.

Lastly, it is important to note that even statistically significant changes need not be the result of the program. Rather, they could be the result of some external, confounding variable that is affecting the entire client population. For example, if all clients in a program voluntarily participate, they may be self-selecting as those that are strongly motivated to change. It is

possible that such a sample would improve on average with or without the program. This is an inherent limitation of the pre- post- study design. All we can say with such a design is whether clients improved over the course of their involvement in the program, consistent with the intention and design of the program. The only way to be confident that these changes are caused by their involvement in the program and not some other factors is using a randomized controlled trial (RCT), which requires a considerably larger investment of time and resources for providers and evaluators alike.

STUDY FINDINGS

All programs initially provided ISR a range of program documents to help us understand their programs. Subsequent communications and meetings with program staff were necessary to understand what service data was available to request and the format in which it could be provided. This task was complicated by need to de-identify data, which had to be performed by programs prior to our receiving it. ISR applied for and received approval from the UNM Institutional Review Board (IRB) to conduct human subjects research prior to receiving any client level data.

Data collection occurred in two installments for each of the four providers. The first round of data collection occurred between November 2022 through January 2023. ISR researchers analyzed this initial round of data to identify potential issues with data completeness, quality, and interpretability. These issues were then communicated to provider staff in emails and meetings in preparation for the final round of data collection. The final round of data collection for each provider occurred between July and September 2023 and ISR analyzed these data between August and November 2023. The results of these analyses are presented in subsections below organized by provider. These subsections occur in the following order: All Faiths, Centro Sávila, New Day, and PB&J.

All Faiths

Program Logic

We received 17 documents from All Faiths pertaining to their ACEs program, named the All Faith's Family Wellness After Trauma program. These documents included their BHI contract, a program Process Map, Logic Model, Agency Overview powerpoint, Adult and Child Intake Packets, Case Management Manual, Case Management Service Plan, Discharge Summary Templates, blank AAPI-2, ACE and Social Determinants of Health (SDOH) assessment forms, and an AAPI-2 development guide. We analyzed these documents with the goal of understanding the stated goals of the program and the plan for achieving those goals.

According to the contract, the long-term goal of the All Faiths ACEs program is "…to address ACEs and improve the social determinants of health of children and families" (BHI, 2021c, p. 2). Their target population is children and families who have experienced trauma. Primary clients are youths ages 0-17. Secondary clients are adults ages 18 and over. The short-term outcomes they seek to produce in their clients are:

1. A reduction in child maltreatment and family violence.
2. Improved community supports.
3. Decreased involvement with the Children, Youths, and Families Department (CYFD).
4. Improved developmental health of the child.
5. Improved child behavior.
6. Improved school/work functioning.
7. Improved parenting practices.
8. Increased family safety.

It should be noted that some of these goals are focused on prevention (e.g., reduce child maltreatment), some on treatment (e.g., improve child behavior), and some target both (e.g., improved developmental health).

The strategy for achieving these goals is to provide children who have experienced trauma and their families with a combination of therapy, case management, comprehensive community support services and high-fidelity wraparound care coordination services. The exact service regimen provided to each family depends on their specific needs. The program aims to serve approximately 800 primary clients and 200 secondary clients each year.

All Faiths lists a range of resources at their disposal that makes them capable of providing these services, including 65 years of experience working with children and families affected by trauma, a yearly budget of $7.5 million and more than 140 trained staff (Stroud & Ford, 2021, p. 2). These staff include "licensed therapists and professionally trained trauma-sensitive Case Manager Providers (Case Managers, Community Service Workers (CSW), Advocates, Supervisors, Case Trackers, Client Navigators)" (BHI, 2021c, p. 2). BHI ACEs funding covers $500,000 of this operating budget annually and goes only to services not covered by Medicaid.

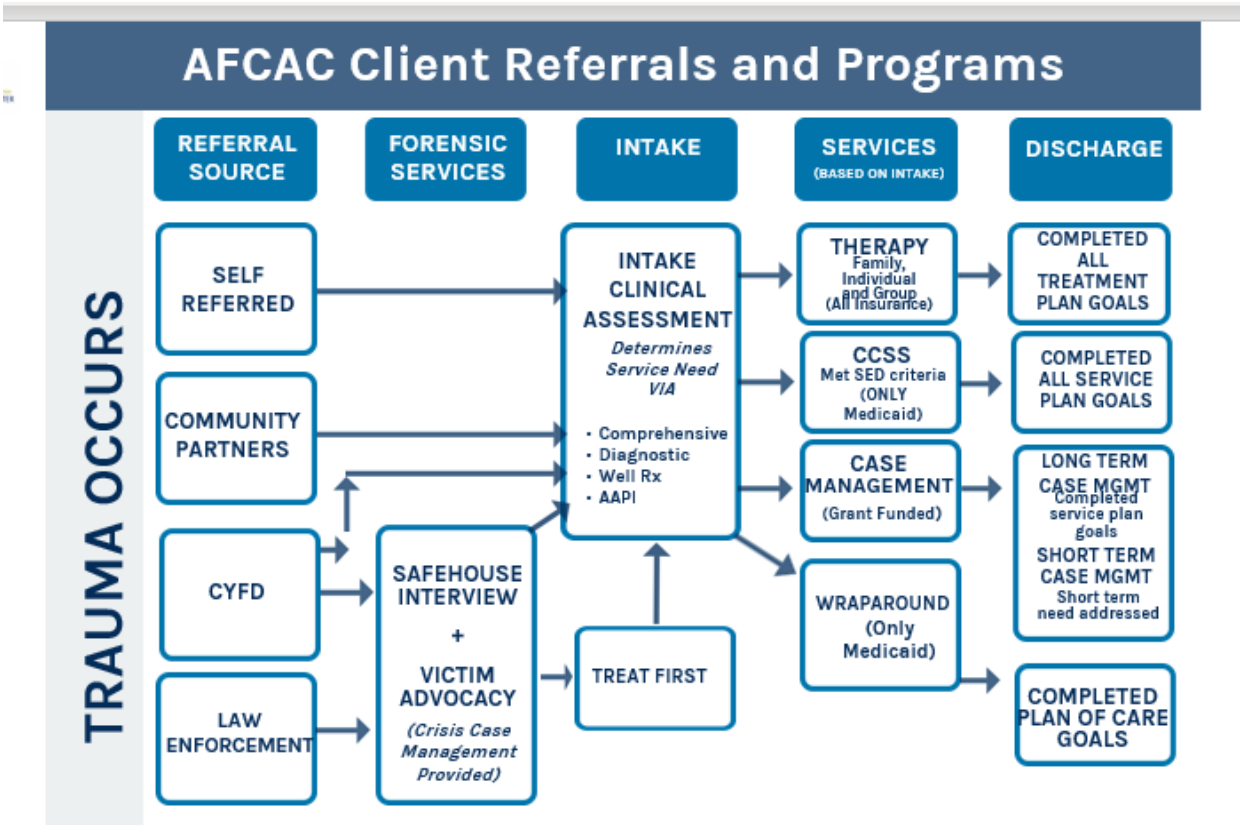
Program Processes

All Faiths outlines a detailed set of procedures for delivering service to clients in their contract and Process Map (Figure 1.1). Referrals to the program are accepted from prospective clients via self-referral, as well as from hospitals, law enforcement, the jail, CYFD, Managed Care Organizations, other community-based providers, community health clinics, shelters for domestic violence victims, and schools (BHI, 2021c, p. 3; Stroud & Ford, 2021, p. 7). There are two ways in which new clients enter the program: (1) through the Children's Safehouse, and (2) through a clinical intake. The Children's Safehouse is for those who have witnessed or

experienced abuse, and offers forensic interviews, victim advocacy (court/trial preparation), case management, and internal and external referrals to other programs as needed.

Figure 1.1.

All Faiths Process Map.



For clinical intake, clients complete forms requesting information about demographics, living situation, treatment history, and child development information (BHI, 2021c, p. 3). This information is then provided to a clinical assessment therapist (CAT) who conducts a Comprehensive Psychosocial Assessment to ascertain the behavioral health problems and history of the client. Clients also complete a Social Determinants of Health (SDOH) assessment and adult clients complete the Adult Adolescent Parenting Inventory (AAPI-2) assessment. Based on this information, the CAT makes a diagnosis and devises a treatment plan. Clients are then placed on a waitlist to be assigned a case manager and therapist. Clients who are deemed to pose a danger to themselves or others are moved to the top of this list. Triage and Treat First services are offered to those on the waitlist as acute needs arise.

Services are tailored to the needs of individual clients and may include a combination of Behavioral Health Therapy, Comprehensive Community Support Services (CCSS), High-Fidelity Wraparound care coordination, and Case Management.

Behavioral Health Therapy is offered to children and adult clients by licensed therapists utilizing the Neurosequential Model of Therapeutics and Trauma Focused Cognitive Behavioral Therapy (TF-CBT). The frequency with which a client receives these services depends on what a clinician deems necessary.

CCSS services provide youths and their families behavioral health support in the form of life skills coaching, parent training, assistance accessing community resources and supports, and other individualized support to succeed at school, work, and in their social relationships (All Faiths Children's Advocacy Center, 2021). These services are provided by Community Support Workers (CSWs) who meet clients in their homes and elsewhere in the community as appropriate.

High Fidelity Wraparound services are provided by a Wraparound Coordinator who works with families to create natural supports around children and youth who have experienced severe trauma. This involves helping the youth to develop goals specific to their needs and based on their own vision and strengths, and then helping the child to achieve those goals.

Case Management services target family level risk factors for ACEs and barriers to healing in the following areas: "academic challenges, financial independence, housing support, legal/court support, life skills development, nurturing parenting, safety/crisis planning, social network expansion, transportation, and service coordination" (BHI, 2021c, p. 2). Case managers are trained to utilize evidence-based approaches in their interactions with clients, including the Nurturing Parenting Program (Family Development Resources, Inc., 2023) and the Nurtured Heart Approach (Nuño et al., 2020; Nurtured Heart Institute, 2022).

Once a client has begun receiving services, the ACE survey is administered within 45 days to assess exposure to childhood trauma. Clients are readministered the SDOH every 6-months to determine needs for case management. Clients medical and therapeutic needs are reassessed by a CAT once every year.

Clients are discharged from the program once they have completed the goals outlined in their treatment plan, or, if they disengage from the program. At discharge a summary is created for each client assessing (1) the degree to which they achieved the goals they set during service planning and, (2) detailing improvements in the client's quality of life and the relevant client outcomes of "child maltreatment, healthy child development, nurturing parenting, juvenile justice/CYFD involvement, family violence, community supports, overall child health, positive behaviors, family functioning, school/work functioning, and safety" (BHI, 2021c, p. 6).

Service Data

We analyzed All Faiths service data to assess the degree to which the program is being implemented according to the above-outlined service delivery plan. We received IRB approval to collect client level data on 08/17/2022. The final round of data collection occurred on 09/12/2023 and included data on program enrollments, ACEs, SDOH, and AAPI-2 assessments, client level service data by appointment, and discharge data.

Service data on appointments covered the period from 07/01/2021 to 08/22/2023, which amounts to 782 days of service. During this time, All Faiths provided services to 3,615 different clients, for an average of 1,687 clients per year (Table 1.1). This exceeds their target of 1,000 clients per year by 68.7%. Some of these clients enrolled in the program before 07/01/2021. There were 3,657 new client enrollments between 07/01/2021 and 08/22/2023, though we do not have service data for all these clients (e.g., those who enrolled on 08/23/2023).

In terms of the demographic characteristics of the client population, 59.1% were female and 40.9% were male (Table 1.1). Client ages ranged from 0 years old to 77 years old, with 82.6% of clients under the age of 18 and 17.4% 18 years old and older. This is close to the planned proportion of 80% primary clients (i.e., youths under age 18) and 20% secondary clients (i.e., adults over age 18). A plurality of clients (44.4%) identified as Hispanic/Latino, with 33.3% identifying as not Hispanic/Latino, and 22.4% were of unknown ethnicity. Most clients did not report their race (50.8%), 34.4% of clients reported their race as White, 3.6% as Black, 6.2% as American Indian, 0.5% as Asian and 4.4% as mixed race.

Table 1.1.

Client demographics.

	Count	Percent
Gender		
Male	1,480	40.9%
Female	2,135	59.1%
Age		
0-17 years old	2,987	82.6%
18 and older	628	17.4%
Ethnicity		
Hispanic/Latino	1,604	44.4%
Not Hispanic/Latino	1,203	33.3%
Unknown	808	22.4%
Race		
White	1,245	34.4%
Black	131	3.6%
American Indian/Alaskan Native/Pacific Islander	225	6.2%
Asian	19	0.5%
Mixed Race	159	4.4%
Unknown	1,836	50.8%

Apart from age, the main client characteristic the program intended to select for was childhood trauma, or ACEs. According to the contract, all clients were intended to take the ACE assessment within 45 days of first receiving services, though it is unclear if "all" here refers to primary (under 18) clients only, or to primary and secondary (adult) clients. All Faiths uses a 14-item ACEs assessment, which includes the original ten ACEs items from Felitti et al., (1998) plus 4 new items measuring peer victimization, peer isolation, community violence, and low socio-economic status (Finkelhor et al., 2015). Ultimately, we only received ACE scores for 575 clients, with assessment dates covering the period from 07/01/2021 to 08/21/2023. This represents only 15.7% of all clients and 19.3% of all clients under age 18 who were enrolled in the program

during that period (N=3,657 and N=2,987, respectively). It is unclear why so many clients are missing ACE scores. Of the ACE scores we were provided, 2.1% had no ACEs, 20.9% had between 1 and 3 ACEs, and 77% had 4 or more ACEs (Table 1.2). The average number of ACEs was 6.4, and the median was 6, meaning half of ACE scores were below 6 and half were above. Based on the ACE scores provided, the All Faiths program is succeeding in reaching its intended target group of children suffering from ACEs.

Table 1.2.

ACE scores of All Faiths clients (N=575).

ACE score	Count	Percent
0	12	2.1%
1-3	120	20.9%
4 or more	443	77.0%
Total:	575	100.0%
Median	6	
Average	6.41	

Note: we were provided 668 ACE scores, but 93 of these were duplicates (meaning they were of the same client), which we removed. If a client had a duplicate ACE score, we retained the most recent score, as this score should capture all previous ACEs.

Apart from ACEs, client needs should be assessed using the SDOH, the AAPI-2, and the Comprehensive Psychosocial Assessment, which is conducted by a licensed clinician. AAPI-2 assessments should have been administered shortly after intake to be used for service planning purposes. Ultimately, we were provided 215 AAPI-2 pre-assessments administered since 07/01/2021. The contract specifies that only secondary clients who are receiving therapy need be administered the AAPI-2. Enrollments data reveals that there were 216 secondary clients enrolled in therapy services (adult behavioral health services, adult group therapy, and parent-infant psychotherapy) since 07/01/2021. This shows that the All Faiths program is administering the AAPI-2 pre-assessment as planned.

We were also provided data on 1,302 SDOH assessments administered to 1,137 unique clients between 07/06/2022 and 08/20/2023, covering a service period of 410 days. It is unclear why

we are missing SDOH data for the period from 07/01/2021 to 07/05/2022. According to program documents, the SDOH should be administered to all new clients and then re-assessed every 6 months. If on average All Faiths saw 1,687 clients per year, then we would expect there to have been approximately 1,895 unique clients during the period covered by SDOH data. The number of SDOH assessments we were provided (1,137) represents an estimated 60% of the target number of SDOH assessments for this period. The average length of time between SDOH assessments for clients with more than one was, on average, 211.5 days. This is slightly longer than the target of readministering the SDOH every six months (i.e., every 183 days).

While we have no direct data regarding the Comprehensive Psychosocial Assessment, we do have data on clinical diagnoses, which is presumably an output of this assessment. From this data, we see that 1,007 client have a clinical diagnosis. This means that at least this many assessments were performed, though, many more could have been performed that didn't result in a diagnosis. According to program documents, all individuals who have been diagnosed with a relevant condition by a clinician should receive behavioral health therapy and/or CCSS. Service data on appointments show there were 1,038 total clients receiving therapy and CCSS services during service period, of which 90.4% (938 individuals) had a diagnosis. This indicates that All Faiths was generally following the procedures they outlined for assessing behavioral health therapy and CCSH needs. The types of needs they were addressing is indicated by data on diagnosis type, or code. In total, there were 49 different diagnoses given to CCSH and Behavioral Health Therapy clients, with many clients receiving more than one diagnosis. The most common diagnosis was "reaction to severe stress," followed by "post-traumatic stress disorder" (Table 1.3).

Table 1.3.

Ten most common clinical diagnoses among All Faiths clients (N=1,007).

Diagnosis	# of clients
F43.9 Reaction to severe stress	470
F43.1 Post-traumatic stress disorder (PTSD)	297
F43.2 Adjustment disorders	140
F43.8 Other reactions to severe stress	89
F41.9 Unspecified Anxiety Disorder	49
F32.9 Major depressive disorder, single episode	42
F41.1 Generalized anxiety disorder	33
F90.2 Attention-deficit hyperactivity disorder, combined type	26
F33.1 Major depressive disorder, recurrent, moderate	22
F34.1 Dysthymic disorder	15

Note: Diagnosis codes were cutoff after the first decimal place to simplify the results and capture broader diagnoses categories.

With regards to service delivery, there is no specific target for number of services by type outlined in program documents. Rather, the number and type of services should depend on the needs of the client as assessed at intake and periodically thereafter based on a client's presenting problem(s), behavioral health history, SDOH, ACE and AAPI-2 assessment scores, and the Comprehensive Psychosocial Assessment. Nevertheless, the appointment data we were provided reveals that All Faiths delivered a large number of services. During the period from 07/01/2021 to 08/22/2023 (782 days), there were 94,417 total appointments scheduled. Of these, 61,770 appointments were ultimately attended, while 32,647 were canceled or unattended by the client. The average appointment length was 1.03 hours (61.9 minutes). In total, All Faiths provided 63,665 hours of service to individuals during this period.

Therapy accounted for 39.2% of all hours of service provided, which is more than any other service category (Table 1.4). This includes individual child therapy, individual adult therapy, adult group therapy, and parent-child therapy. Child therapy alone accounted for more service hours than any other single service category and 29.8% of all service hours All Faiths provided. The next highest number of service hours is for High Fidelity Wraparound services, at 22.6%, followed by CCSS at 11.8%. Two categories of service category were not explicitly mentioned in program documents: Care Coordination and Adoption Services. Based on communication with

All Faiths staff, Care Coordination was originally categorized under High Fidelity Wraparound, but has recently been made into a separate program. All Faiths Adoption Services work with birth families and prospective adoptive parents to help create a safe and nurturing home for adopted children.

Table 1.4.

Hours of service by type for All Faiths clients.

Service Category, or Program	Hours of Service	Percent of Total
Safehouse	2,840	4.5%
Intake, Assessment, & Collateral	5,516	8.7%
Triage	308	0.5%
Treat First	927	1.5%
Behavioral Health Therapy	24,935	39.2%
CCSS	7,493	11.8%
High Fidelity Wraparound	14,376	22.6%
Care Coordination	341	0.5%
Case Management	5,761	9.0%
Adoption Services	1,168	1.8%
Total	63,665	100.0%

With regards to discharges, the data we received is somewhat conflicting. A dataset we were provided specific to discharges indicated there had been 1,208 individuals discharged from the program during the period from 07/01/2021 to 08/23/2023. According to a second dataset on enrollments, which also reported discharge dates, 2,080 clients discharged during this same period. It is unclear why this discrepancy exists.

According to the dataset on discharges, of the 1,208 clients who discharged, 391 clients (32.4%) successfully completed their treatment plan, whereas 816 (67.5%) disengaged from services without completing their treatment plan (Table 1.5). Based on the enrollments dataset, the average time clients spent in the program, which we calculated by subtracting their earliest enrollment date from their last discharge date, was 476.5 days. The median length of stay was 238 days, meaning half of clients had a shorter stay than this and half had a longer stay. The median is a better indication of the typical client experience, as there were several outliers that

skewed the average. For example, one individual had 4,388 days (12 years) between first enrollment and final discharge.

Table 1.5.

Number of successful vs. unsuccessful discharges of All Faiths clients (N=1,208).

Discharge Reason	Count	Percent
Completed treatment successfully	391	32.4%
Disengaged prior to completion	816	67.5%
Unknown	1	0.1%
Total	1208	100.0%

Outcomes

All Faiths provided us data on three types of outcome measures: discharge reports by staff assessing client improvements, pre- post- SDOH data, and pre- post- AAPI-2 data.

Discharge reports of client improvements are filled out by staff as part of the Case Management Discharge Summary. This includes questions about whether the client achieved the goals they set while in the program and whether the client's quality of life improved due to the services. If clients discharge successfully, these questions may be presented to the clients as well, however, it is ultimately the service provider who judges these outcomes. It is unknown whether these reports accurately measure what they proport to (i.e., goal achievement and quality of life improvement).

For the 1,208 clients who discharged, 6.2% were evaluated to have met and exceeded all goals, 18.2% met all goals, 10.1% met most goals, and 25.1% met at least some goals (Table 1.6). This totals to 59.6% of clients who met at least some of their goals in the program, as evaluated by program staff. The remainder of clients were evaluated as having not met any goals (38.8%) or are missing data on goal achievement (1.6%). With regards to quality of life, 26.2% of clients were evaluated as having increased their quality of life greatly over the course of the program, 42.5% to have improved their quality of life somewhat, and 30.2% to have not improved their quality of life at all.

Table 1.6.

Perceived goal achievement and perceived improvement on quality of life at discharge.

	Count	Percent
Goal Achievement		
Met and exceeded goals	75	6.2%
Met all goals	220	18.2%
Met most goals	122	10.1%
Met some goals	303	25.1%
Did not meet any gools	469	38.8%
Unknown	19	1.6%
Total	1208	100.0%
Quality of Life Improvement		
Quality of life was improved greatly	316	26.2%
Quality of life was improved somewhat	513	42.5%
Quality of life was not improved at all	365	30.2%
Unknown	14	1.2%
Total	1208	100.0%

The next outcome measure we analyzed was the SDOH assessment. The SDOH assessment asks clients to self-report on 13 social determinants of health areas, including their ability to pay for utilities, food, and medical treatment; their access to transport, stable housing, legal support, and childcare; their rates of victimization from others; problems with drug use and mental health; and employment and education levels. To assess improvement in SDOH, which is one of the stated goals for the program, we compared pre- and post- SDOH scores to identify the number of clients who improved in terms of SDOH with the number who worsened or stayed the same. While the SDOH is not a validated pre- post- assessment, the questions appear unambiguous in the concepts they measure and have direct relevance to multiple ACE risk factors.

In total, we were provided data on 1,302 SDOH assessments administered to 1,137 unique clients between 07/06/2022 and 08/20/2023. Of these, 150 clients had more than one SDOH

assessment. If a client had more than two SDOH scores, we retained the first and last as the pre- post- pair. We discarded three clients from the analysis who had only two scores taken within two weeks of each other, which we deemed not long enough to expect any effect from the program. This left 138 matched pre-post- pairs. Of these, more clients improved than worsened on 7 out of the 13 SDOH items over the course of their involvement in the program (Table 1.7). On 2 SDOH items, more clients worsened than improved, and on 3 items, clients remained the same from pre- to post-test.

Table 1.7.

Changes in SDOH scores over the course of clients' involvement in the All Faiths program (N=138).

	# of clients		
SDOH Area	Pre-test	Post-test	Change
Difficulty paying electric, gas, or water bill (past 3 months)	6	6	No change
Lack reliable transportation (past 3 months)	26	22	Improved
Harmed or threatened by others (past 3 months)	18	18	No change
Unable to pay for medical care (last 3 months)	3	3	No change
Mental health problems interfered with daily life (past 3 months)	40	39	Improved
Use of alcohol or drugs interfered with daily life (past 3 months)	0	1	Worsened
In need of daycare or better daycare for your kids	8	5	Improved
Unemployed or without regular income	19	14	Improved
Needs help getting more education	8	7	Improved
Needs legal support	13	8	Improved
Does not have a steady place to live	12	9	Improved
Worried that food would run out (past 3 months)	12	21	Worsened*

Note: Changes marked with an "*" are statistically significant at the a=0.05 level.

The fact that clients improved on most SDOH items provides evidence for the effectiveness of the All Faiths program, and its case management component in particular, for strengthening social and economic supports for high risk families. These SDOH areas have considerable overlap with ACE risk factors, as described in the Literature Review section. Thus, the fact that

clients improved in most SDOH areas should correspond to a reduced risk for future ACEs. However, some caution is warranted in the interpretation of these results. Apart from the fact that this is not a validated pre- post- assessment, the only statistically significant change was a worsening in food insecurity, which went from 12 food insecure individuals at pre-test to 21 at post-test (McNemar's $\chi^2 = 4.923$, df=1, p=0.027). It is unclear why food insecurity would have increased so much over the course of the program, though it seems unlikely that this would have been caused by the program itself. Perhaps it could be accounted for by some external factors that uniquely affected food access, like inflation in food prices. However, this is pure speculation. In general, clients SDOH appears to have improved over the course of their involvement in the program, though more research is needed to say this with confidence.

The last type of outcome data we analyzed was from the Adult Adolescent Parenting Inventory (AAPI-2). The AAPI-2 is a validated instrument for measuring parenting attitudes shown to correlate with abuse and neglect behavior (Bavolek & Keene, 2010). The assessment scores people on 5 parenting attitude constructs:

A. Inappropriate Parental Expectations
B. Parental Lack of an Empathic Awareness of Children's Needs
C. Strong Belief in the Use and Value of Corporal Punishment
D. Parent-Child Role Reversal
E. Oppressing Children's Power and Independence.

Scores range between 1 and 10. A score from 1-3 indicates problematic parenting attitudes that represent a high risk for child abuse and neglect. A score from 4 and 7 is considered moderate risk, and a score from 8-10 is considered low risk.

We were provided data on 550 total AAPI-2 assessments. For individuals who had more than 2 assessments, we kept the earliest pre- and the latest post- to compare. We also deleted 3 paired tests for which the pre- and post- were less than 2 weeks apart, as this does not provide enough time for services to influence client attitudes. Ultimately, we were left with 113 matched pre- post- pairs, all of which had a post-test that was completed after 07/01/2021.

The average scores for the pre-test lie between 4 and 7 for all 5 constructs, indicating that the average All Faiths secondary (i.e., adult) client receiving therapy is at a moderate risk for engaging in abuse and neglect behavior (Table 1.8). The post-test scores are also between 4 and 7 for all 5 constructs, revealing that clients remained, on average, in the moderate risk category at discharge. Nevertheless, average clients scores increased for all 5 constructs, indicating an overall improvement in parenting attitudes.

Table 1.8.

AAPI-2 pre- and post- assessment score summary statistics for All Faiths clients (N=113).

Construct	Pre-test mean score	Post-test mean score
A: Inappropriate Parental Expectations	5.6	6.4
B: Parental Lack of an Empathic Awareness of Children's Needs	4.9	5.6
C: Strong Belief in the Use and Value of Corporal Punishment	5.6	6.1
D: Parent-Child Role Reversal	6.1	6.8
E: Oppressing Children's Power and Independence	6.2	6.9

To evaluate whether this improvement is statistically meaningful, we assessed effect size and statistical significance. Effect size is measured using Cohen's d statistic, which is calculated by dividing the average difference between pre- and post- scores by the standard deviation of the difference. Typically, an effect must be d=0.2 or higher to be considered meaningful. An effect size between d=0.2 and d=0.5 is considered small. An effect between d=0.5 to 0.8 is considered medium. An effect size of d=0.8 or greater is considered large. All 5 of the observed improvements in AAPI-2 construct scores had small but meaningful effect sizes (d=0.2 to d=0.5) (Table 1.9). Moreover, all five of these effects were statistically significant ($p<0.001$), meaning it would be very unlikely to get these results by random chance if there were not in fact a real, underlying improvement in client parenting attitudes.

Table 1.9.

Results of paired sample t-test to assess whether clients AAPI-2 scores at discharge had significantly improved compared to intake (N=113).

Construct	Mean difference	Std. dev.	t-value	p-value	Cohen's d
A: Inappropriate Parental Expectations	0.82	2.06	4.25	<0.001**	0.40
B: Parental Lack of an Empathic Awareness of Children's Needs	0.64	1.88	3.61	<0.001**	0.34
C: Strong Belief in the Use and Value of Corporal Punishment	0.50	1.52	3.52	<0.001**	0.33
D: Parent-Child Role Reversal	0.71	1.76	4.27	<0.001**	0.40
E: Oppressing Children's Power and Independence	0.72	2.00	3.81	<0.001**	0.36

Note: p-values that are less than 0.001 are marked with "**" to indicate statistically significant results.

Discussion

The All Faiths program seeks to address ACEs both via prevention and treatment. Their strategy for accomplishing this involves delivering behavioral health therapy, CCSS, high fidelity wraparound, and case management services to at risk clients. This is a logically sound strategy, which incorporates evidence-based practices, such as TF-CBT. They have also outlined a detailed plan for delivering the above services to the target population, which includes procedures for outreach and referral, assessment of client needs and service planning, service delivery, and eventual discharge.

Based on service data, it appears that All Faiths is generally implementing their outlined service delivery plan. In fact, they have exceeded their target number of yearly clients. Based on the ACE, SDOH, and AAPI-2 assessment scores we were provided, All Faiths also appears to be reaching a population with a high need for the types of ACEs interventions the program offers.

Some questions remain, however, around service delivery, such as why they are missing so many ACE sores. Acquiring these scores would seem to be important for All Faiths in planning service provisioning to meet individual client needs. Also, because so many ACE scores are

missing, we cannot say whether the average and median ACE scores we reported here are representative of the larger All Faiths client population.

With regards to outcomes, the program appears to be producing meaningful changes in clients consistent with its goals. Some of this data, such as subjective evaluations of clients' goal achievement and quality of life improvement is positive, but also unreliable as a measure, given that it hinges on the subjective assessments of All Faiths staff. Data on changes in SDOH is somewhat more reliable, though still not a validated pre- post- measure. Comparing SDOH pre-post- scores indicates that clients are improving on a variety of social and economic dimensions over the course of their involvement in the program. This is quite encouraging as this should indicate a reduced risk of ACEs for these families. The strongest outcome evidence, however, comes from the AAPI-2, which is a validated measure. AAPI-2 results show that parenting attitudes among All Faiths secondary (adult) clients improved in statistically meaningful ways across all 5 parenting attitude constructs, which is associated with a reduced risk of child abuse and neglect. This addresses three of the short-term outcomes All Faiths identified in program documents: (1) improving parenting practices, (2) reducing child maltreatment and family violence, and (3) decreasing involvement with the Children, Youths, and Families Department (CYFD).

We are unable to adequately assess the effectiveness of some of the other services All Faiths provides. Child behavioral health services are the largest single category of services All Faiths offers by service hours and program documents mention two short-term outcomes that would likely be affected by these services: (1) improved child developmental health, and (2) improved child behavior. However, All Faiths does not utilize validated outcome measures to assess these outcomes. Collecting such measures in the future is recommended.

Centro Sávila

Program Logic

We received 19 program documents from Centro Sávila pertaining to their ACEs program, named the Critical Time Intervention Program. These documents include their BHI contract, a County Sub-Committee Presentation on their program, blank intake forms, blank SDOH and ACE assessments, Job descriptions for Case Manager, Child Clinician, and Supervisor Case Manager positions, documents describing program outcomes, and blank outcome forms (CTI survey and Pre- Post- Outcome measures). We analyzed these documents with the goal of understanding the stated goals of the project and the plan for achieving those goals.

The target population for the program is youths ages 11-18 who have had recent "systems involvement" (juvenile justice, foster care, etc.) and who are preparing to or are in the process of re-integrating into the community. According to the contract, the long-term goal of the program is "to reduce future ACEs in children, prevent or reduce substance use, reduce

interaction with the criminal/juvenile justice system and improve overall client behavioral health outcomes" (BHI, 2021b, p. 2). The strategy to accomplish this is to utilize the Critical Time Intervention (CTI) approach.

CTI is an evidence-based practice for reintegrating vulnerable individuals back into society following a period of being isolated from it, as can occur with veterans, the homeless, prisoners, and those who have been institutionalized for mental health reasons (Jarrett et al., 2012; Kasprow & Rosenheck, 2007; Susser et al., 1997). The approach is based on the idea that such individuals need a network of supportive relationships to help them overcome challenges during this transition period. CTI helps individuals build a support network in three, time-limited phases (The Center for the Advancement of Critical Time Intervention, 2014). In the first phase, case managers make home visits to identify clients' existing support networks, assess their needs, and link them with additional supports as needed. The second phase involves monitoring the operation of this expanded support network and resolving conflicts and problems as they arise. The third and final phase involves transferring care of the client to the new support network.

The Centro Sávila program is intended to last 9 months for each client. Services are provided to clients by 2.5 full-time equivalent (FTE) CTI specialists (i.e., case managers) and 3 FTE licensed therapists. Staff are bilingual as at least half the clients are expected to be Spanish speaking immigrants. Centro Sávila aims to serve 135 primary clients and 35 secondary clients (members of youth's family and support network) each year. Services offered include:

1. Universal screening for ACES
2. In-depth clinical and service intake, assessments, and goal setting
3. Individual case management
4. Individual and family counseling
5. Access to prescription medication
6. Peer psychoeducational group for substance users
7. Quarterly psycho-educational workshops.
8. Life skills classes
   (BHI, 2021b, p. 2).

The outcomes the program aims to achieve for its primary (youth) clients include: improved self-awareness, improved communication skills, improved knowledge of personal rights, improved leadership in advocacy skills, and reduced substance use. Long-term outcomes identified by the program are that youth clients improve their relationships through five "self-advocacy skills":

1. Advanced Self-awareness
2. Mindful Communication
3. Deepened Knowledge of Rights

4. Inclusive Leadership
5. Sustained honor for Holistic Wellness
   (Santiago, 2019, p. 5)

The above strategy of targeting systems-involved youth for therapy and case management to help them build supportive relationships so that they might overcome challenges as they arise can be understood primarily as an ACEs treatment program. It is expected that these youths have already suffered trauma and the program seeks to mitigate the effects of this on future life outcomes through (1) therapy to target problematic thoughts and behaviors, and to build emotional insight and awareness and to develop coping skills, and (2) case management to build resiliency both in the form of internal assets (i.e., knowledge of rights, communication skills, etc.) and external resources (i.e., supportive relationships). Of course, strengthening individuals' support networks can also prevent future ACEs by removing various risk factors for ACEs (e.g., lack of social supports and economic resources).

Program Processes

Centro Sávila outlines a detailed set of procedures for delivering service to clients from referral and intake through service delivery and discharge.

According to the contract, referrals are accepted internally from other Centro Sávila programs, and externally from community-based providers, schools, juvenile parole officers, and other relevant entities. At most, 30% of referrals should be internal. Referred individuals are initially screened for eligibility, typically over the phone. Eligibility requirements are that one be from 11-18 years of age and have had past involvement in juvenile justice, residential treatment, psychiatric inpatient, foster care, APS disciplinary, or other similar systems. Individuals may enroll prior to being discharged from one of these systems so as to already have a support network in place when they transition (BHI, 2021b, p. 3).

Intake is conducted by the Case Management Enrollment Team. According to the blank Intake Form we were provided, new clients are asked a range of questions about their needs, goals, and existing supports. The intake form also includes an SDOH assessment. An initial treatment plan is created within 30 days of entry into the program. Within 45 days of intake into the program, a clinician administers the ACEs assessment and the CTI survey (which is administered again at discharge to assess client outcomes). Assessing needs and revising the treatment plan is an ongoing, iterative process that continues throughout service delivery.

Services are delivered jointly by the CTI Specialist and therapist, who meet regularly to review clients' progress and needs to better meet their goals (BHI, 2021b, p. 4). All clients are to receive a minimum of 1 hour of case management per week, provided by the assigned CTI Specialist. Initially, the CTI Specialist uses this time to build rapport with clients and get to know their needs and personal goals. Next, the CTI Specialist systematically assesses client needs and

existing areas of strength, helps to link client with appropriate supports, and uses motivational interviewing techniques to help client set healthy goals. In the next phase, the CTI Specialist observes the new support network and resolves problems as they arise. In the third and final phase, the CTI Specialist helps the client and their supports to create a long-term care plan, before relinquishing care of the client to this new support network.

Centro Sávila's clinical services are provided by licensed therapists who use a strengths-based, trauma informed techniques (BHI, 2021b, pp. 5–6). Treatment needs are assessed by a clinical therapist and may include individual and family therapy. Initially, all clients should receive a minimum of 1 hour of therapy per week, which may be reduced as the client moves through the program. The maximum time a client may spend in the program is nine months, though many stay shorter. This time limit is core to the CTI approach, which is designed to help individuals transition back into society, rather than serving as a permanent support service for the client.

A discharge plan is created with the involvement of the client during the second half of service delivery (BHI, 2021b, p. 7). The frequency of services is gradually reduced leading up to discharge. A client may discharge from the clinical component of the CTI program prior to finishing case management if they meet their treatment plan goals or opt out. Clients discharge last from case management, at which time the CTI Specialist hands the care of the client off to their newly established support network.

Service Data

We analyzed Centro Sávila service data to assess the degree to which the program was being implemented according to the above-outlined service delivery plan. We received IRB approval to collect client level data on 11/16/2022. The final round of data collection occurred on 09/13/2023 and included data on enrollments, client demographics, ACEs and SDOH assessment data, case management and therapy appointment data, discharge dates, and CTI pre- post- survey data.

According to the program roster, there were 248 individuals active in the program between 07/01/2021 and 08/22/2023. This averages out to approximately 116 clients per year, which is 68.2% of their target of 170 clients (135 primary and 35 secondary clients). The ages of the clients at the time of referral ranged from 11 to 68 years old. Clients between the age of 11 and 18 accounted for 72.6% of total clients (Table 2.1). Program documents specify that 20.6% of clients (35 out of 170 total clients) should be secondary clients. If we assume that all clients over the age of 18 were secondary clients, then the program had a slightly larger proportion of secondary clients than intended (27.0%).

Table 2.1.

Age at referral for Centro Sávila CTI clients (N=248).

Age	n	%
11-14	88	35.5%
15-18	92	37.1%
19 and older	67	27.0%
Missing	1	0.4%
Total	248	100.0%

In addition to age, enrollment data reported on several demographic attributes of clients, including gender identity, race, and ethnicity. In terms of client gender identity, 58.5% identified as female, 40.3% as male, and 1.2% as transgender or non-binary (Table 2.2). The race of most clients was Hispanic/Latino (62.1%), followed by “unknown race” (16.5%). This accords with the intention of the program to target Spanish-speaking Latino immigrants.

Table 2.2.

Centro Sávila client demographics (N=248).

	n	%
Gender Identity		
Female	145	58.5%
Male	100	40.3%
Transgender/Non-Binary	3	1.2%
Race		
Asian	5	2.0%
American Indian	9	3.6%
Black or African American	4	1.6%
Hispanic/Latino	154	62.1%
White	14	5.6%
Mixed Race	11	4.4%
Other Race	10	4.0%
Unknown	41	16.5%

Apart from age, systems involvement was the primary eligibility criteria mentioned in program documents. While we do not have any data on systems involvement for Centro Sávila's clients, we were provided ACE scores, which indicates past trauma and is likely highly correlated with systems involvement. We were provided ACE scores for 126 clients, representing 50.8% of the 248 active clients for whom we received client level data. This shows that the program is falling short of its target to administer the ACE assessment to 100% of clients within 45 days of enrollment. Of the 126 clients with ACE scores, 17.5% had an ACE score of 0, 50% had a score from 1-3, and 32.5% had a score of 4 or more ACEs (Table 2.3). This means that 82.5% of Centro

Sávila's clients had at least one ACE. This indicates a high level of past trauma among their clients.

Table 2.3.

ACE scores of Centro Sávila clients (N=126).

ACE Score	n	%
0	22	17.5%
1-3	63	50.0%
4-10	41	32.5%
Total	126	100.0%

Note: 122 clients (49.2%) were missing an ACE score.

Another indicator of client level of need comes from SDOH assessment scores. We received SDOH data for 153 clients, representing 61.7% of the 248 active clients for the study period. Of those clients for whom we have SDOH data, 36.7% are without regular income, 35.7% are either homeless or worried that they might be in the future, 23.3% have trouble finding or paying for a ride, 23.1% have had to skip meals in the last 2 months due to lack of resources, and 15.9% feel unsafe in their daily life (Table 2.4). This indicates a high level of risk for future trauma among the sample, due to a lack of sufficient resources and social support. Moreover, the SDOH data reveals that this risk is manifesting in real bodily harms, with 10.5% of the sample visiting the emergency room more than 2 times in the last 6 months, and 7.1% being hospitalized. The SDOH data also reveals a significant need for and interest in case management services, with 29.6% reporting needing help finding a better job, 32.6% needing help getting more education, and 20.9% needing help with legal issues. In sum, the SDOH data, like the ACE score data, indicates that Centro Sávila is generally reaching their target client population of high-risk youths who could benefit from services that help build their resiliency for future challenges they are likely to encounter.

Table 2.4.

SDOH of Centro Sávila clients (N=153).

SDOH Area	Count	Percent
In the past 2 months, did you or others you live with eat smaller meals or skip meals because you didn't have money for food?	33	23.1%
Are you homeless or worried that you might be in the future?	50	35.7%
Do you have trouble paying for your gas or electricity bills?	39	28.9%
Do you have trouble finding or paying for a ride (transportation)?	30	23.3%
Do you need daycare, or better daycare, for your kids?	9	7.4%
Are you without regular income?	40	36.7%
Do you need help finding a better job?	29	29.6%
Do you need help getting more education?	30	32.6%
Are you concerned about someone in your home using drugs or alcohol?	6	7.0%
Do you feel unsafe in your daily life?	14	15.9%
Do you need help with legal issues?	18	20.9%
In the last 6 months have you been at the Emergency Department more than twice?	9	10.5%
In the last 6 months, have you been hospitalized?	6	7.1%

To assess the rates at which clients were moving through the program, we relied on referral, enrollment, and discharge dates from the program roster. While we restricted the sample to individuals who discharged after the 07/01/2021 cutoff, many individuals had a referral date before this. The earliest referral date was 02/09/2018. While all clients had a referral date, not all had an enrollment date. For those who did, the average time from referral to approval was 18.76 days, though the median was 0, meaning at least half of all clients were approved on the

same day they were referred. The average time in the program, meaning time from enrollment to discharge, was 336 days (11 months), with a median of 274 days (9 months) (Table 2.5). The median is exactly the maximum amount of time clients are meant to stay in the program according to program documents. This means that half of clients stay in the program less than 9 months and half more. The fact that the average length of stay (11 months) is significantly more than this median is attributable to the fact that a few clients remained in the program for an inordinate amount of time, thereby skewing the results. For example, one client was enrolled in the program for nearly 4 years (47 months). These data indicate that the program is often not following the stated plan of limiting clients to 9 months in the program. [*According to Centro Sávila administrators, clients can petition to remain in the program for longer, which the program allows if there is no appropriate place to refer clients due to insurance, language, transportation, and other barriers*].

Table 2.5.

Length of stay in the Centro Sávila CTI program in units of days and months (N=159).

	Length of Stay	
	Days	Months
Minimum	0	0
Maximum	1432	47.048001
Average	335.9	11.03591
Median	273.5	8.9857739

Centro Sávila also provided us with appointment data for CTI Intakes, Clinical Assessments, Treatment Planning, Therapy (Individual, Group, and Family), Crisis Interventions, and Collateral Appointments (i.e., meetings with parents, caretakers, and other family or supports of client). We removed appointments that had a check-in, cancellation, or no-show date from before the study period (07/01/2021), leaving a total of 4,833 appointments. Of these, 429 were “no shows” and 583 were cancelled, leaving 3,821 appointments attended by 269 unique clients. The latest date for an attended appointment was 08/08/2023.

Based on data regarding the duration of attended appointments, there was a total of 3,900.8 hours of service provided. Nearly half of all service hours were for Individual Therapy (45.5%) (Table 2.6). A quarter of all appointment hours did not have an associated appointment type (marked “unknown” in the table below). The next most common type of service was Case

Management (12.6%). On average, each client received 14.5 hours of service total over the service period. However, there was considerable variability among clients in number of services received, with one client receiving only 0.15 hours and another client receiving 132 hours (Table 2.7).

Table 2.6.

Hours of service by type.

Program	Hours of Service	Percent of Total
CTI Intake	9	0.2%
Clinical Assessment	142	3.6%
Treatment Planning	48	1.2%
Individual Therapy	1,775	45.5%
Family Therapy	167	4.3%
Group Therapy	70	1.8%
Case Management	491	12.6%
Collateral	55	1.4%
Crisis Intervention	9	0.2%
Contact Note	156	4.0%
Unknown	980	25.1%
Total	3,901	100.0%

Table 2.7.

Number of service hours per client (N=269).

Minimum	0.15
Maximum	132.1667
Average	14.5
Median	6

These results indicate that the program is falling far short of its target in delivering case management services. According to program documents, there should be three CTI specialists, each of whom delivers 1 hour of case management to their clients each week. The maximum active case load per CTI Specialist mentioned in the contract is 20 clients. If we conservatively assume each CTI Specialist sees just half of that (i.e., 10 clients per week), then there should be 30 hours of case management delivered each week, or 1,564 hours of case management each year. By comparison, the total number of hours provided by Centro Sávila for all services over a period of two years is 491 hours, which corresponds to approximately 16% of the above estimated rate. By contrast, the total number of hours of Individual, Group and Family Therapy delivered over the same period was 2,012 hours, which is much closer to the above rate even though program documents specify that therapy can occur less than once a week (BHI, 2021b, p. 5). This suggests that the program is likely meeting their service target with respect to therapy, but not for case management.

According to Centro Sávila administrators, this discrepancy is attributable to the COVID-19 pandemic. At the height of the pandemic, case management services were scaled back significantly to prevent disease transmission. After these strict measures were relaxed, there were lingering impacts on client needs and preferences, such as increased utilization of telehealth services and decreased utilization of community-based providers. Additionally, Centro Sávila began experiencing staffing issues at this time, particularly with regards to case managers. These staffing issues were compounded by new requirements from BHI that peer case managers be certified peer support workers prior to or shortly after being hired, which often was not feasible within the time limits set forth.

Service data indicates that 159 clients discharged from the program during the study period (post-07/01/2021). We cannot tell from the data we were provided how many of these were successful discharges (i.e., clients who had completed the program versus clients who simply disengaged from services).

Outcomes

Centro Sávila provided us data from one outcome measure: the pre- post- CTI Survey. This survey was created in-house by Centro Sávila and includes 12 items:

1. I have goals for myself.
2. I am comfortable communicating with authority figures (JPOs, teachers, etc.).
3. I am comfortable communicating with my parent(s)/caregiver(s).
4. I am comfortable asking for emotional support when I'm feeling distressed or upset.
5. I am comfortable asking for my basic needs, like food, shelter, and safety.
6. I know how to handle conflict in a healthy way.
7. Relationships are important to me.
8. I know how to compromise in a relationship so that I get some of my needs met and the other person does too.
9. I know what my personal legal rights are.
10. I have an interest in improving inequality in my community.
11. I can cope with highly stressful situations in healthy ways that do not hurt myself or others.
12. I take responsibility for my healthy and unhealthy choices and actions.

There are 5 response options for each item, ranging from "Not at all true," to "Very true". By administering the CTI survey at intake and discharge, Centro Sávila hopes to assess whether the program is achieving its short- to medium-term goals of:

1. Improved self-awareness.
2. Improved communication skills.
3. Improved knowledge of personal rights.
4. Improved leadership in advocacy skills.
5. Reduced substance use.

We were provided data on 131 CTI pre-assessments and 52 CTI post-assessments. This means we have a pre-test for 52.8% of clients enrolled during the study period and a post-test for 32.7% of clients who discharged during the study period. The number of post-tests seems low, but it could be explained by clients discharging unsuccessfully (i.e., disengaging from services without completing the program). Of these assessments, 42 were matched pre- post- pairs. To analyze these data, we first converted responses to a number from 1 to 4, whereby "Not at all true" was assigned a value of 1, "Somewhat true" was assigned a value of 2, "True" was assigned a value of 3, and "Very true" was assigned a value of 4. "I don't Know" responses were recoded as NA. We then treated these numbers as if they were points on a continuous scale and calculated the average responses for each item at pre- and post- as well as average changes from pre-test to post-test across individual clients.

Results show that the average client scores increase for 10 out of the 12 items from pre-test to post-test (Table 2.8). For instance, the average of item 1: “I have goals for myself” was 3.18 for the pre-test and 3.35 for the post-test. This means that the average response was between “True” and “Very true” for both pre- and post-, though closer to “Very true” in the post-test (i.e., an improvement). The fact that clients scores improved for 10 out of 12 (83.3%) of items is encouraging. However, before we conclude from this that the program is working as intended, it is necessary to consider (a) whether these results are statistically meaningful, and (b) how confident we are that the items themselves measure what they proport to.

Table 2.8.

CTI pre- and post- assessment scores summary statistics (N=42).

Items	Mean score		Difference
	Pre-test	Post-test	
1. I have goals for myself.	3.18	3.35	0.18
2. I am comfortable communicating with authority figures (JPOs, teachers, etc.).	2.58	3.00	0.42
3. I am comfortable communicating with my parent(s)/caregiver(s).	2.43	3.19	0.76
4. I am comfortable asking for emotional support when I'm feeling distressed or upset.	2.47	3.11	0.63
5. I am comfortable asking for my basic needs, like food, shelter, and safety.	3.03	3.33	0.31
6. I know how to handle conflict in a healthy way.	2.37	2.69	0.31
7. Relationships are important to me.	3.16	3.22	0.05
8. I know how to compromise in a relationship so that I get some of my needs met and the other person does too.	3.00	2.94	-0.06
9. I know what my personal legal rights are.	2.42	2.71	0.29
10. I have an interest in improving inequality in my community.	2.65	2.94	0.29
11. I can cope with highly stressful situations in healthy ways that do not hurt myself or others.	2.58	2.74	0.16
12. I take responsibility for my healthy and unhealthy choices and actions.	2.97	2.84	-0.13

To evaluate whether the observed changes in client pre-test to post-test scores are statistically meaningful, we assessed effect size and statistical significance. We assessed the effect size by calculating the Cohen's d statistic. Typically, an effect must be d=0.2 or higher to be considered meaningful. An effect size between d=0.2 and d=0.5 is considered small, between d=0.5 to 0.8 is considered medium, and d=0.8 or greater is considered large. The largest observed effects dealt with improved communication skills. The improvement in comfort communicating with parents (item 3) qualifies as a large effect (d=0.79) (Table 2.9). The measured improvement in being comfortable asking for emotional support (item 4) was the next largest, at d=0.67. There were also small improvements in goal setting (item 1), communicating with authorities (item 2), being comfortable asking for help with basic needs (item 5), conflict resolution skills (item 6), knowledge of personal legal rights (item 9), and interest in improving inequality in the community (item 10). Four of these items had statistically significant improvements: item 2 ($p<0.05$), item 3 ($p<0.001$), item 4 ($p<0.001$), and item 5 ($p<0.05$), all of which deal with communication skills. The two items that showed a slight worsening in client outcomes (items 8 and 12) had effects that were neither meaningfully large nor statistically significant.

Table 2.9.

Results of paired sample T-test to assess whether clients CTI scores at discharge had significantly improved compared to intake (N=42).

Item	Mean diff.	Std dev	t-value	p-value	Cohen's d
1. Has goals for self.	0.175	0.80	1.42	>0.05	0.22
2. Comfortable communicating w/ authority.	0.42	0.98	2.66	<0.05*	0.43
3. Comfortable communicating w/ parent(s).	0.76	0.96	4.82	<0.001**	0.79
4. Comfortable asking for emotional support.	0.63	0.94	4.13	<0.001**	0.67
5. Comfortable asking for basic needs.	0.31	0.91	2.15	<0.05*	0.34
6. Knows how to handle conflict healthily.	0.31	0.94	1.93	>0.05	0.33
7. Sees relationships as important.	0.05	0.63	0.47	>0.05	0.08
8. Knows how to compromise in a relationship.	-0.06	-1.00	-0.39	>0.05	0.06
9. Knows what personal legal rights are.	0.29	1.21	1.51	>0.05	0.24
10. Interested in improving inequality.	0.29	1.07	1.58	>0.05	0.27
11. Can cope with highly stressful situations.	0.16	1.00	0.97	>0.05	0.16
12. Takes responsibility for choices and actions.	-0.13	-0.87	-0.9	>0.05	0.15

Note: p-values that are less than 0.05 are marked with an "*" to indicate statistically significant results.

Unfortunately, even though some of the measured improvements are statistically meaningful, we cannot say with any confidence that this survey measures the theoretical constructs it proports to, nor that those constructs are connected to concrete behavioral health outcomes of interest (e.g., reduced homeless, systems involvement, etc.). This is because the CTI measure has not been validated, which requires extensive study by specialists. To illustrate the problem,

consider item 9, which asks clients to rate the following statement as true or not: “I know what my personal legal rights are.” It is unclear whether this item accurately measures actual knowledge of legal rights versus merely a subjective sense that one knows their rights. Indeed, it might not even measure the subjective sense reliably, if, for instance, the question is vague such that people interpret what is meant by “personal legal rights” in markedly different ways each time they answer the question. It is also unclear how some of these items relate to concrete behavioral health outcomes of interest. For example, one of the items people are assessed on is “I have an interest in improving inequality in my community.” This might be a laudable interest for an individual to have, but it is unclear how it improves the behavioral health of the client and, if so, in what ways.

According to Centro Sávila administrators, they were unable to locate any measures that were both validated for use with systems-involved youth and were not overly burdensome for their clients. One of the few validated instruments they found for their target population was reportedly over 100 questions long. Centro Sávila judged that administering such a burdensome assessment at intake would undermine trust and engagement in the program, and thus opted for a shorter assessment tool created in house.

Discussion

The Centro Sávila CTI program seeks to help vulnerable youths reintegrate back into society following systems involvement (e.g., juvenile detention) by helping them to build resiliency in the form of inner assets (knowledge and skills) and external resources (a social support network). They plan to accomplish this by providing clients with case management and therapy on a time-limited basis. The expected short- to medium-term outcomes of this are that clients will improve in the domains of self-awareness, communication skills, knowledge of personal rights, leadership in advocacy skills, and reduced substance use.

Based on assessment data, it appears that Centro Sávila is reaching their target population of at-risk youths between the ages of 11-18. Based on ACEs assessment data, their clients have a high degree of past trauma. SDOH assessment data reveals that these youths remain at high risk for future adverse experiences, due to many having unstable living situations and low access to resources. SDOH data also indicates many of these clients want help with employment, education, and legal matters, which could be well served through case management.

Service data reveals that Centro Sávila has generally delivered the planned types of services to their clients. However, it does not appear that they have delivered all services at the intended rates. In particular, the amount of case management service hours delivered per client falls well below the targets identified in program documents. Therapy, by contrast, does appear to have been delivered at approximately the rate specified in program documents. It is unclear why the discrepancy between planned and actual service hours exists for case management but not therapy.

Service data also reveals that approximately half of Centro Sávila's clients remained in the program past 9 months, which is the service time limit identified in program documents. According to the CTI literature, strictly limiting the duration of services is a core component of the CTI approach (The Center for the Advancement of Critical Time Intervention, 2014). It is unclear why the Centro Sávila program is not adhering to the service time limits identified in the literature and in their own planning documents.

Lastly, with regards to outcomes, the CTI pre- post-assessment indicates that clients have improved along most metrics. Moreover, two of these improvements have medium to large effect sizes and four of the measured improvements are statistically significant. However, there are serious concerns over the interpretability of these outcome measures, given that the CTI instrument is not validated. Because of this, we are uncertain what it measures and what the exact relationship these measures have to behavioral health outcomes.

New Day

Program Logic

We received 18 program documents from New Day pertaining to their ACEs program, named the Life Skills Coaching program. These documents included their BHI contract, a Life Skills (LS) Coaching Program Overview, blank referral and intake forms, blank ACEs, SDOH, and All About You assessment forms, a LS Coaching Action Plan Guide, the ACEs Life Skills (LS) Coaching Handbook, LS Coaching Service Note Procedure guide, LS Coaching Exit Survey, and the Child and Youth Resiliency Measure-Revised (CYRM-R) blank questionnaire and user manual. We analyzed these documents with the goal of understanding the stated goals of the project and the plan for achieving those goals.

According to the contract, the long-term goal of the program is "to prevent homelessness in youth and to encourage building positive habits to reduce recidivism from substance abuse and other negative factors" (BHI, 2021a). The primary target population for the program is youths age 12-18, who live in Bernalillo County and have experienced or been involved in the "juvenile justice system, homelessness, the child welfare system, [or] the behavioral health system" (New Day, 2020). The strategy to improve the behavioral health outcomes for this population is to provide life skills coaching and life skills classes to build resiliency so that they might avoid the negative outcomes associated with ACEs. This is a logical strategy, as ACEs have been shown to contribute to negative outcomes like substance use disorder, homelessness, and incarceration (Merrick et al., 2019), and building resiliency in individuals who have experienced ACEs is believed to be an effective treatment strategy to avoid these outcomes (Chandler et al., 2015; Fergus & Zimmerman, 2005).

Life skills coaching services are to be provided by two full time life skills coaches. According to the contract, coaches receive training in evidence-based and evidence-informed practices, such

as motivational interviewing (Bischof et al., 2021), trauma-informed care (Reeves, 2015), and the Nurtured Heart Approach (Nuño et al., 2020; Nurtured Heart Institute, 2022). Coaches provide coaching services to clients one-on-one or in small groups. They also provide life skills classes to larger groups at the life skills academy. In these coaching sessions and classes, coaches focus on helping their clients to build skills and knowledge in "8 Life Domains":

1. Community Engagement
2. Cultural & Personal Identity Formation
3. Educational Success
4. Emotional Intelligence & Communication
5. Employment & Career Exploration
6. Health Education & Risk Prevention
7. Relational & Social Skills
8. Leadership & Advocacy

New Day aims to provide services to 45 primary clients each year. Additionally, New Day aims to provide services to 5 secondary clients each year. Secondary clients refer to "guardians, family members, significant others, roommates or other natural supports to the primary client" (BHI, 2021a, p. 3). Coaches are supposed to maintain an active roster of 10–15 youth and engage with each youth individually at least once every other week. The anticipated average length of stay in the New Day program is six (6) months, but this can vary according to client needs.

Program Processes

New Day outlines a detailed set of procedures for delivering service to clients in their program documents.

Regarding referral, prospective clients may self-refer to the program or may receive a referral internally via New Day's drop-in center, shelter, street outreach, high-fidelity wraparound, or else externally from various community partners, including CYFD, law enforcement, schools, juvenile justice programs, and community-based behavioral health providers (BHI, 2021a, pp. 1–2). The program has a target of receiving 33% of referrals from the drop-in center, 33% from other internal sources, and 33% from external community partners.

Clients who are referred to the New Day Life Skills Coaching program are screened for eligibility based on their age (must be 12-18 years old) and residence (must reside in Bernalillo County). After intake, clients are contacted by their assigned life skills coach within 36 hours.

Each coach develops an "action plan" with clients, which specifies what life skills goals the youth wishes to pursue in the program, what assistance the youth needs, what strengths the youth has that can be leveraged in pursuit of these goals, and the anticipated timeline for achieving their goals. To better gauge clients' needs, strengths, and goals, life skills coaches administer a range of assessments, including the ACE, SDOH, and CYRM-R assessments, and the

All About You survey (BHI, 2021a, p. 3; New Day, 2021, p. 11). There is some discrepancy on the timing of these assessments in program documents, with the contract stating they will be administered within 45 days of services and the Life Skills Coaching Program Handbook and Procedure Manual specifying they will be administered within 4 weeks of intake.

Coaching is a non-clinical service that does not require a diagnosis. Coaches utilize a strength-based approach, wherein coaches help youths to identify and leverage their strengths in order to set and achieve goals. Coaching sessions can occur at the New Day shelter, the drop-in center, local middle schools, local high schools, and anywhere else in the community that is appropriate based on the needs and goals of the client. Coaching sessions are delivered one-on-one or in small groups with other youths. Coaching sessions should occur at least every two weeks for each client. The average length of a coaching session should be 1 hour (New Day, 2021, p. 13).

Life Skills Academy (LSA) classes are offered to youths of all ages and is offered as a complimentary service to all youths enrolled in Life Skills Coaching. A key advantage of the LSA classes is to offer youths opportunities to develop leadership skills in interaction with other youths. New Day aims for 70% of their Life Skills Coaching clients to participate in at least one LSA class per month, with 10% participating in youth leadership opportunities each quarter.

Clients who successfully complete the program complete an exit survey and CYRM-R post-assessment at discharge. Clients who age out of the program by turning 19 years old are discharged and referred to appropriate community-based behavioral health providers as needed. Clients are also discharged if they disengage from services and fail to respond to 4 contact attempts to re-engage them.

Service Data

We analyzed New Day service data to assess the degree to which the program was being implemented according to the above-outlined plan. We received IRB approval to collect client level data on 12/14/2022. The final round of data collection occurred on 09/12/2023 and included data on program enrollments and discharges, ACEs scores, SDOH needs and services provided, coaching sessions and LSA class attendance by client, coaching notes, exit surveys, and CYRM scores.

Enrollment data shows there were 85 clients who received services during the present contract period. All clients included in our analysis had a discharge date after 07/01/2021. Many of these clients enrolled prior to this period, with the earliest enrollment recorded on 06/11/2019 and the latest on 06/08/2023. Given that service data covers a period of approximately 25 months, the number of clients seen per year averages to approximately 40.8, which is slightly less than the target number of 50 clients per year identified in program documents.

Reported client demographic characteristics are shown in Table 3.1. A plurality of clients were female (45.9%), followed by male (42.4%), and transgender or non-binary (11.8%). Regarding

sexual orientation, an equal number of clients were straight as were gay, bisexual or other (31.8%), however, a greater number of clients (36.5%) had no sexual orientation reported. The most common racial identity for clients was White (50.6%), followed by African American (15.3%), American Indian (10.6%), and mixed race (4.7%). Regarding ethnicity, a majority of clients (57.6%) identified as Hispanic/Latino.

Table 3.1.

Client demographics.

	n	%
Gender		
Female	39	45.9%
Male	36	42.4%
Transgender/non-binary	10	11.8%
Sexual Orientation		
Straight	27	31.8%
Gay, Bisexual, or Other	27	31.8%
Missing	31	36.5%
Race		
American Indian	9	10.6%
African American	13	15.3%
White	43	50.6%
Mixed Race	4	4.7%
Unknown	16	18.8%
Ethnicity		
Hispanic/Latino	49	57.6%
Non-Hispanic/Latino	27	31.8%
Unknown	9	10.6%

One of the only eligibility criteria identified in program documents is that primary clients be between 12 and 18 years of age. According to enrollment data, 73 clients were between 12 and 18 years of age when they entered the program (Table 3.2). The remaining 12 clients were between 19 and 22 years of age, representing 14.1% of total clients. Assuming these are secondary clients, this is just slightly more than the 10% target for secondary clients identified in program documents.

Table 3.2.

Age at entry for New Day Life Skills program clients.

Age	n	%
12-18 years old (primary clients)	73	85.9%
19-22 years old (secondary clients)	12	14.1%

The primary target population for the New Day Life Skills Coaching program are youths with a high level of need for support due to their involvement with "the juvenile justice system, homelessness, the child welfare system, the behavioral health system, and those seeking additional support with any of the 8 Life Skills Domains listed" (New Day, 2020). Included in the enrollment data was information on clients' school status, housing status, and Protective Services (PS) involvement. Based on this data, around 17.6% of clients attend school irregularly or have "dropped out", while 60% either attend school regularly or have already graduated (Table 3.3). Most clients live with a guardian, relatives, or friends (65.5%), whereas 30.6% of clients have less stable housing status, such as living in group homes, crisis shelters, motels, correctional facilities, transitional housing, or "on the street". Lastly, 16.5% of clients are either currently receiving PS services, are in need of PS services due to suspected abuse, or else had past PS involvement, while 83.5% of clients have had no PS involvement.

Table 3.3.

School status, housing status, and protective services involvement for New Day clients (N=85).

	n	%
School Status		
Attending school regularly OR Graduated/GED	51	60.0%
Attending school irregularly OR Dropped Out	15	17.6%
Unknown	19	22.4%
Housing Status		
Lives with Guardian/Relatives/Friends	48	56.5%
Group Home/Foster Care/Crisis Shelter/CYFD Building	11	12.9%
Hotel/motel	4	4.7%
Correctional Facility	4	4.7%
Transitional Housing	6	7.1%
"On the street"	1	1.2%
Missing	11	12.9%
Protective Services (PS) Involvement		
In custody/receiving PS services	8	9.4%
In need of PS services due to suspected abuse	1	1.2%
Past PS involvement	5	5.9%
No PS involvement	71	83.5%

Another indication of the level of client need is provided by ACE scores. According to the contract, all clients are to be administered an ACE assessment within 45 days of enrollment. Out of the 85 total clients, 61 (72%) had an ACE score. Of these, 16.4% had a score of 0, 24.6% had a score between 1 and 3, and 59% had a score of 4 or more (Table 3.4). Based on the percentage of clients with 4 of more ACEs, in addition to data on client school status, housing status, and PS involvement data, it appears that New Day is generally succeeding in reaching youths with a high level of risk for behavioral health problems due to past trauma and systems involvement.

Table 3.4.

ACE scores of New Day clients (N=61).

ACE Score	n	%
0	10	16.4%
1-3	15	24.6%
4-10	36	59.0%

Note: 24 clients (28.2%) were missing an ACE score.

According to program documents, coaches are meant to use the SDOH assessment and "All About You" survey to assist in creating an action plan for each client. However, based on discussions with staff, coaches do not administer a formal SDOH assessment to their clients. Instead, they identify areas of SDOH need based on informal conversations with their clients. Evidence for this was provided in the form of a datasheet titled "SDOH Data", which listed dates of services with a "services needed" column alongside a "focus area" for the service provided. Many of these service needs and focus areas correspond broadly with SDOH categories, such as: "Employment, Housing, Educational/Vocational, Safety and Stability, Transportation, and Food Security." In total, there were 184 services listed for 31 different clients in the SDOH datasheet. These services appear to overlap with those listed on a more comprehensive dataset of services received (discussed below). It is unclear how consistent and reliable the procedure for assessing SDOH by the coaches was and what the procedure was for determining whether a service qualified as an SDOH service. Based on discussions with New Day staff, they are in the process of formalizing the procedures for assessing SDOH.

The primary source of data on service delivery came from a datasheet titled "Services Received." Services listed in this datasheet covered the period from 07/05/2022 to 08/09/2023. It is unclear why we are missing a year of service data (07/01/2021-07/04/2022). According to

the monthly performance measures reported to Bernalillo County, New Day saw 34 unique clients and provided 177 total units of service for this same period (FY22). For the 13-month service period for which we do have client level service data, there were 924 total units of service provided to 49 different clients. This is close to the target of 50 clients per year. If we assume that (1) there are two coaches at any time, (2) each coach maintains an active roster of at least 10 clients, and (3) each coach provides a minimum of one unit of service per client every two weeks, then there should be a minimum of 571.4 units of service over this period. New Day exceeded this minimum number by 352.6 units of service, or 62%.

Of these 924 services, 348 (37.7%) were coaching sessions and 576 (62.3%) were LSA classes. The average number of services per client was 18.9 and the median was 10, meaning half of clients received fewer than 10 units of service and half received more than 10 units. However, there was considerable variation among clients in the number of services received with one client receiving 139 units of service and another client receiving only 1 unit of service. This generally accords with the design of the program, whereby each client is treated as "the primary navigator of their coaching program… [and] may choose to engage for a period of time, then disengage, and then join again picking up right where they left off" (New Day, 2021, p. 4). While we have no data on the duration of time each unit of service lasted, staff communicated to us that coaching sessions typically last 45 min to an hour, though can sometimes go considerably longer, and life skills classes typically last 1 hour.

We were also provided a datasheet with coaching notes for the same service period described above. In total, this datasheet contained 327 coaching notes for 46 unique clients. This represents 94% of the 348 coaching sessions provided during this period. We randomly sampled 5 coaching notes entries (with identifiers redacted), to illustrate the types of information they contain (Table 3.5). The first coaching note describes a group coaching session with two clients. The remainder are for one-on-one sessions. The sample notes illustrate the variable length and detail of these notes. This is likely explained by different coaches having different note-taking practices. It is also noteworthy that two of the five notes describe coaching sessions that occurred in locations in the community (a business for one and a restaurant for another), which seemed to fit with the youths' interests and needs. In general, the coaching notes provide evidence for the flexible and individualized nature of service provisioning as planned in program documents.

Table 3.5.

Random sample of 5 coaching session notes taken from a pool of 327 coaching notes.

1. [Client 1] stated that the job she thought she had didn't end up following through. She said her mom had some connections with [a business] and was going to attempt to get her an interview there. [Client 2] noticed the shop we were at had "now hiring" signs and asked [Client 1] if she'd be interested in working there. [Client 1] was able to get an application, fill it out, and turn it in. [Client 1] will call shop [on date] to see the status of her app.
2. Met w/ [Client] and she stated that she is enjoying her new job although it doesn't pay that much. She stated that she met a new boy and they have begun dating. She stated that she really likes him and hopes that it works out. She stated that her boyfriend recently moved in w/ her and they are looking for a bed. [Client] stated that she feels different about this relationship because she is acting and responding differently w/ him. We discussed past relationships and her current relationship and identified what healthy looks like and how to spot red flags.
3. Met w/ [Client] and discussed how he has been doing since he's had to cancel a few times due to illness. [Client] discussed how he's feeling better and having to play catch up with his grades. We discussed how he can make that happen so he can maintain his [--] GPA.
4. Met w/ [Client] and completed all assessments. [Provider 1] and [Provider 2] also completed the referral for casa q's TLP.
5. Met with young person at their house. Picked up young person and took him to [Restaurant]. This is the first meeting not done at the home.

Of the 85 clients who enrolled in the program, 75 (88.2%) discharged before 08/09/2023. The average length of stay among these clients was 192 days, or 6.3 months (Table 3.6). This is very close to the typical length of stay envisioned in program documents of 6 months. However, there is considerable individual variation in service length, with one client remaining only 13 days, and another remaining for 1,171 days.

Table 3.6.

Clients' length of stay in the New Day program in units of days and months (N=75).

	Length of Stay	
	Days	Months
Minimum	13	0.4
Maximum	1,171	38.5
Average	192	6.3
Median	120	3.9

Note: Length of stay in months was calculated based on an average month length of 30.44 days.

Of the 75 individuals who discharged, 25 (33.3%) are noted as a successful discharges, meaning they completed the program according to their coaches. Of these, 13 had explanations pertaining to having successfully gained skills or achieved goals (e.g., "[client] successfully applied for a job and updated his resume", or, "youth met all his goals and graduated High school. Will be moving with his family"). Another 2 successfully discharged clients had different explanations, like that the client relocated safely to another city/state, or, the client is temporarily stopping the program but will return in a few months. The remaining 10 successfully discharged clients have no explanation recorded. Of the 75 discharged clients, 10 (13.3%) are recorded as unsuccessful discharges. Of these, 6 had explanations, all of which pertained to the fact that coaching staff were unable to make contact with the client. This generally accords with the planned procedures for successful and unsuccessful discharge outlined in program documents. The remaining 40 discharged clients were marked as neither successful or unsuccessful and have no explanation given.

Overall, based on the data we were provided, New Day appears to be providing services of the type and frequency outlined in program documents and to the types of clients envisioned. The client profiles broadly meet their eligibility requirements and have a high level of risk for behavioral health problems based on their ACE score, school status, housing status, and PS involvement. The number of clients to whom they provided life skills coaching and LSA services is only slightly less than their target number. Based on coaching session notes, it is apparent that coaching staff are implementing the stated plan of highly individualized coaching sessions

conducted in the community based on individual client needs. Whether they are effectively addressing client needs and producing improvements in client resiliency is explored next.

Outcomes

We were provided with two types of outcome data: exit surveys and Child and Youth Resiliency Measure-Revised (CYRM-R) scores.

Exit surveys ask clients about their subjective sense of accomplishment and satisfaction with the New Day program. We were provided data on 14 exit surveys. This represents 56% of all successful discharges during this period. The reason for this low count is at least partly because some of the exit surveys were completed in hard copy form, which we were not given access to. For the exit surveys we were able to analyze, the results were positive with the average client agreeing or strongly agreeing with statements that the program was effective in helping them to set personal goals, identify new strengths and interests, form a positive relationship with their coach, gain life skills, and gain confidence in their ability to make positive changes in their lives moving forward (Table 3.7).

Table 3.7.

Exit surveys (n=14) for clients who discharged before 08/09/2023. A score of 4 corresponds to "Agree" and a score of 5 corresponds to "Strongly Agree."

	Average
I have identified attainable and achievable personal life goals.	4.75
I was able to identify a new spark/interest that I did not know about myself before.	4
Time with my coach was well spent.	4.35
Expectations for Life Skills Coaching were clear to me.	4.67
I have gained valuable life skills I am comfortable implementing in the future.	4.67
I feel capable of making positive changes in the future on my own.	4.5
I felt heard and connected with my Life Skills Coach.	4.75
I would feel comfortable reconnecting with my Life Skills Coach again for support.	4.417

Unfortunately, the data from exit surveys provide an unreliable measure of program success, as people may be poor judges of their own success and could be biased for a variety of reasons in how they answer. Nevertheless, these results are instructive in gauging client's general satisfaction with the program, which appears to be high. This is a positive outcome in its own right, in that it indicates clients may have a high willingness to engage in this and similar programs moving forward. However, it doesn't tell us much about whether the program produced improvements in the specific outcomes it targets.

One of the key outcomes the program intends to produce is an increase in client resiliency. To measure this, New Day uses the CYRM-R, which is a validated measure of resiliency (Resilience Research Center, 2019). This means it has been systematically studied by scientists to ensure that it accurately measures resiliency and can be used to assess changes in resiliency over time (Jefferies et al., 2019; Katisi et al., 2019). The CYRM-R generates three resiliency scores for each respondent: a Personal Resiliency score, a Caregiver Resiliency score, and a Total Resiliency score. Personal Resiliency refers to assets and resources of the individual child or youth that can help them to overcome challenges. Caregiver Resiliency refers to similar assets and resources possessed by a youth's adult caregivers. Total Resiliency is a composite of Personal and Caregiver Resiliency scores.

By comparing New Day clients' CYRM-R scores from intake and discharge, it should be possible to see if their resiliency levels increased, on average, over the course of their involvement in the program as intended. However, after the first round of data collection on 01/04/2023, we found that there were too few matched pre- and post- CYRM-R scores to make meaningful inferences to this effect. When we communicated this concern to New Day staff it became apparent that there was confusion about how the CYRM-R was to be administered. Staff informed us that they had only been consistently administering the CYRM-R at intake, as this is what is specified in their contract. Indeed, the contract specifies that the CYRM-R should be administered to 100% of clients, but not that it should be administered twice: once at intake and once at discharge. [Confusingly, the coaching manual does mention that the CYRM-R should also be administered at discharge (New Day, 2021, p. 15)]. Following our discussion, New Day agreed to implement the pre- post- plan moving forward. We also suggested that they administer the CYRM-R at intake and every 3-months after, as this would increase our sample size and thus the likelihood of detecting meaningful improvements in client resiliency, if they exist.

Ultimately, we received 54 CYRM-R scores for 41 unique clients. Unfortunately, most of these clients only had one CYRM-R score, making it impossible to assess improvements in their resiliency levels over the course of their involvement in the program. Just 12 clients had matched pre- and post- CYRM-R scores, the earliest of which was from 01/05/2022 and the latest of which was from 07/27/2023. The average length between pre- and post- CYRM-R scores was 187 days, or just a little over 6 months.

The results of our analyses of the paired CYRM-R scores show that clients had lower Personal Resiliency and Total Resiliency, on average, at discharge compared with intake, but higher levels of Caregiver Resiliency (Table 3.8). However, none of these observed effects were statistically significant, meaning there is little confidence that they reflect anything other than measurement error and random chance (Table 3.9). Moreover, the effect sizes (assessed using Cohen's D) are all below d=0.2, making them too small to be considered meaningful.

Table 3.8.

New Day CYRM-R pre- and post-test scores summary statistics (N=12).

Resiliency Scale	Average score		Difference
	Pre-test	Post-test	
Total Resiliency (n=9)	68.22	66.11	-2.11
Personal Resiliency (n=10)	39.7	38.6	-1.1
Caregiver Resiliency (n=11)	27.55	28	0.45

Table 3.9.

Results of paired sample T-test to assess whether New Day clients CYRM-R scores at discharge had significantly improved compared to intake (N=12).

Resiliency Scale	Average Difference	Std. dev.	t-value	p-value	Cohen's d
Total Resiliency (n=9)	-2.11	10.88	-0.58	>0.1	-0.19
Personal Resiliency (n=10)	-1.1	5.82	-0.6	>0.1	-0.19
Caregiver Resiliency (n=11)	0.45	5.84	0.26	>0.1	0.08

Discussion

The New Day program has a logical design, which seeks primarily to treat ACEs by building resiliency among high-risk children and youths. The strategy for achieving this is to deliver life skills coaching and life skills classes, which is based on similar, evidence-informed approaches to building resiliency and promoting positive development in youth (Chandler et al., 2015; Edwards et al., 2007).

Based on the service data we were provided, New Day appears to be generally implementing their program according to plan. In the final year of the program (07/05/2022 to 08/09/2023) New Day provided 924 units of life skills coaching sessions and life skills academy classes to 49 different clients, which is close to their target of providing services to 50 clients per year and exceeds their minimum target in terms of units of service provided by 62%. We are unable to evaluate program implementation for the year prior to that, as we are missing service data for that period.

In terms of outcomes, the results for New Day are inconclusive. While the exit survey responses were generally positive, the survey questions have not been validated. Therefore, we cannot say with any confidence whether clients objectively improved in the ways survey responses would seem to indicate. New Day also utilized the CYRM-R, which is a validated measure for assessing changes in resiliency. However, analysis of CYRM-R data yielded no meaningful results due to the small sample size (N=12 matched pairs). A considerably larger sample size would be needed to detect statistically significant improvements, if such improvements exist.

PB&J

Program Logic

We received 19 program documents from PB&J pertaining to their ACEs program. These documents included their BHI contract, a County Sub-Committee Presentation of their program, blank referral, intake, treatment planning and discharge forms, blank SDOH and ACE screening assessments, a Family Intervention Specialist (FIS) job description, and blank outcome assessment forms (the AAPI-2, the Protective Factors Survey (PFS), and the North Carolina Family Assessment Scale (NCFAS)). We analyzed these documents to understand the stated goals of the program and the plan for achieving those goals.

The target population for the program is families with children deemed at risk for ACEs. The goal of the program, according to the contract, is to help “families develop the skills needed to promote healthy functioning, reduce the risk of violence, abuse, and neglect in the home, and increase positive familial and community relations” (BHI, 2021d, p. 2). To accomplish this, PB&J offers clients two main types of services:

1. Psychoeducational parenting groups to promote bonding and attachment, child development, understanding of past/present trauma to help prevent multigenerational cycles of abuse, and safe and effective parenting practices.
2. Case management delivered by a Family Intervention Specialist (FIS) to provide positive parenting techniques; identify safety, family functioning, and other risk factors as well as client strengths and resources.
   (BHI, 2021d, p. 2)

To deliver these services, PB&J employs 7 Family Intervention Specialists (FIS) (5.4 combined Full Time Equivalent (FTE)) and 2 licensed clinical therapists (combined 1 FTE). FIS's take a primary role in guiding psychoeducational parenting groups and case management. FIS are trained to deliver the evidence-based Nurturing Parenting program (Family Development Resources, Inc., 2023). Clinical therapists take a consulting role and may attend psychoeducational groups as well as accompany the FIS on home visits for case management when necessary. The program aims to serve 100 new families each year, with each family participating in the program for a minimum of 16 weeks. The intended outcomes of the program are:

1. To keep families together.
2. Provide children with a safe home environment.
3. Strengthen concrete family supports, such as access to housing, health insurance, nutrition, and adequate income.
   (BHI, 2021d, p. 4)

The PB&J strategy of strengthening supports for families with a high risk of ACEs through case management and improving parents' knowledge and attitudes about child-rearing through psychoeducational parenting classes is a logical approach to addressing ACEs. This approach is primarily geared toward preventing future ACEs for young children. However, as discussed in the Literature Review section, creating a safe and nurturing home environment for young children who have already experienced ACEs can also be an effective means of returning child development to a more normal trajectory and thereby helping to mitigate the effects of prior ACEs on life outcomes.

Program Processes

PB&J outlines a detailed set of procedures for delivering service to clients from referral and intake through service delivery and discharge.

PB&J accepts referrals from Children, Youths, and Families Department (CYFD), the Metropolitan Detention Center (MDC), hospitals, domestic violence shelters, community health clinics, schools, and community-based providers. According to their contract, PB&J receives

around 60% of its referrals from CYFD. After a referral is received, an appointment is set within 48 hours. This initial appointment is designed to collect basic family information and to set an appointment for an intake assessment. Eligibility is determined at the intake assessment based on two criteria: (1) does the family have children 5 years old or younger, or an expectant parent, and (2) is the family at high risk for ACEs. ACE risk factors that are monitored for include: substance use, abuse/neglect, domestic violence, other behavioral health disorders, and parent-child conflicts.

To assess family needs, the FIS will administer ACEs and SDOH assessments within 45 days of enrollment. Parents fill out the ACE assessment on behalf of their child, as well as reporting on their own ACE history and that of the child's other parent as applicable. Additionally, the FIS administers the Adult Adolescent Parenting Inventory (AAPI-2) to parents prior to the first psychoeducational parenting group and the North Carolina Family Assessment Scale (NCFAS) within 45 days of enrollment. Individualized family service plans are created based on these assessments and conversations with the client family and family supports as appropriate. These plans are subsequently updated every 90 days based on ongoing conversations between clients, the FIS, and clinicians.

Parenting groups and case management services are to be delivered once per week for 16 weeks. Weekly parenting groups last approximately 3 hours and present the full Nurturing Parenting Program curriculum. Case management occurs according to tiers based on client needs and can range from once a month to twice a week in frequency. Case management services focus on ensuring families have sufficient access to financial assistance, housing, public benefits, education, vocational opportunities, health insurance or Medicaid, counseling, substance use treatment, transportation, crisis management, and strategies for parenting and self-care. Clients may continue with case management after completing the 16-week class.

Additionally, an estimated 50 clients per year will need therapy services. These clients will be provided a clinical assessment and brief intervention concurrent with the 16-week program. At the completion of the program, they will be referred to a community-based, clinical therapy provider as needed.

At discharge, clients are administered the AAPI-2, PFS, and NCFAS post- assessments to measure changes in clients' parenting attitudes, protective factors, and family functioning over the course of their involvement in the program. Clients are contacted 90 days after discharge to assess whether the family is maintaining an improved level of functioning and to reinforce knowledge and skills learned from the program and make referrals to new services as needed.

Service Data

We analyzed PB&J service data to assess the degree to which the program was being implemented according to the above-outlined service delivery plan. We received IRB approval to collect client level data on 06/29/2022. The final round of data collection occurred on

06/12/2023 and included data on enrollments, client demographics, services delivered, and ACE, AAPI-2, PFS, and NCFAS assessment data.

We received enrollment data for 344 unique clients who either discharged after 07/01/2021 or had not yet discharged. Of these, 9 clients had more than one start and/or end-date recorded. In some instances, it appears that these clients had enrolled, discharged and then re-enrolled. For others the dates overlap, suggesting the double entries may be in error. A total of 306 new clients enrolled after 07/01/2021, with the last enrollment occurring on 05/09/2023. This averages to 171.6 clients per year, which exceeds the target of enrolling 100 new families each year by 71.6%.

Enrollment data contains information on several demographic attributes of clients, including age, gender, race, and ethnicity. Of the 344 clients enrolled during the study period, 187 clients were children, accounting for 54.4% of all clients, and 157 (45.6%) were adults. The majority of clients were children between the ages of 0 and 5, which makes sense given the program eligibility requirement that families have a child under 5 or an expectant parent (Table 4.1). An additional 3.5% of clients were between the ages of 6 and 18, perhaps representing siblings of young children or else young parents or expectant parents. The majority of clients (56.7%) were female and 43.3% were male. In terms of race, the majority of clients identified as Hispanic (67.4%), followed by White (14.0%) and American Indian/Alaska Native (6.7%).

Table 4.1.

Age, gender and race of PB&J clients (N=344).

Age	Count	Percent
0-5	180	52.3%
6-18	12	3.5%
19 and older	152	44.2%
Gender		
Male	149	43.3%
Female	195	56.7%
Race		
American Indian/Alaska Native	23	6.7%
Asian	1	0.3%
Black/African American	20	5.8%
Hispanic	232	67.4%
Native Hawaiian or Pacific Islander	7	2.0%
White	48	14.0%
Multiracial	3	0.9%
Unknown	10	2.9%

Apart from the requirement of having a child under 5 years old or being an expectant parent, the other main eligibility requirement identified in program documents is that families be at a high risk for future ACEs. One good indicator of risk for future ACEs is past ACEs. We were provided ACE scores for 98 clients, and 88 separate families. This represents 28.5% of all clients enrolled during the study period. This is low, considering that the program target is for 100% of families to be assessed for ACEs.

Each family could provide ACE scores for the child and two parents, with all three assessments being completed by a single parent. It is not clear from the data we were provided whether a score was zero or missing. In the case of the child and the first parent (who is the one that fills out the ACEs assessment for everyone), it is probably reasonable to assume that a score of zero means the assessment was given and there were no ACEs to report. This might not be the case for the second parent, where a score of zero might indicate that the first parent was unable or unwilling to complete an ACEs assessment on their behalf. Based on the data we were provided, ACEs were high among children, with 65.3% having at least one ACE and 19.4% having 4 or more (Table 4.2). This indicates a high risk for future ACEs, especially considering most of these children are 5 years old or younger and have already experienced ACEs. Interestingly, ACEs were even higher among the first parent, with 86.7% having at least one ACE and 59.2% having 4 of more. This lends credence to the notion that ACEs are an intergenerational problem. The ACE scores are much lower for the second parent, which may be due to reporting bias.

Table 4.2.

ACE scores of PB&J clients (N=98).

ACE Score	Count	Percent
Children		
0	34	34.7%
1-3	45	45.9%
4-10	19	19.4%
Parent 1		
0	13	13.3%
1-3	27	27.6%
4-10	58	59.2%
Parent 2		
0	90	91.8%
1-3	5	5.1%
4-10	3	3.1%

We received service data for 5,253 appointments scheduled between 07/01/2021 and 06/06/2023 for 205 unique clients. Of these, 835 appointments were canceled, or unsuccessful contact attempts and the remaining 4,418 appointments represent successfully delivered services. This averages to 21.6 appointments per client. If, as planned, each client spent 16 weeks in the program and received a minimum of 1 psychoeducation class per week and 1 session of case management every four weeks, that amounts to 20 appointments per person. By this rough calculation, PB&J is providing slightly more than the minimum number of services per client specified in their program documents.

The most common type of appointment during this period was case management, which accounted for 40.9% of all appointments (Table 4.3). The next most common appointment type was parent only psychoeducation group, which accounted for 25.6% of all appointments. If we collapse the service categories in Table 4.3 below by combining case management, home

visiting, social work, and transportation into one overarching case management category; that category would account for 2,824 appointments, or 63.9% of all attended appointments. If we similarly collapsed parent only, parent child, and child group psychoeducation classes into one overarching psychoeducation category; that would account for 1,541 appointments, or 34.9% of all attended appointments.

Table 4.3.

PB&J appointments by type (N=205).

Service Category	Count	Percent
Case Management	1805	40.9%
Home Visit	683	15.5%
Social Work	276	6.2%
Transportation	60	1.4%
Parent Only Group	1131	25.6%
Parent Child Group	401	9.1%
Child Group	9	0.2%
Art Therapy	45	1.0%
Evaluation	8	0.2%
Total	4418	100.0%

It is unclear why PB&J appears to be delivering more units of service in case management than psychoeducation group classes. It could be explained by some clients continuing to receive case management after completing psychoeducation classes. It is also possible that more clients receive the maximum number of case management (2 units per week), rather than the minimum of 1 unit per month.

Overall, PB&J appears to be providing services of the type and frequency specified in their program documents.

Outcomes

PB&J provided us data from three outcome measure: the Adult Adolescent Parenting Inventory (AAPI-2), the Protective Factors Survey (PFS), and the North Carolina Family Assessment Scale (NCFAS).

The AAPI-2 is used to assess parenting attitudes. This is a validated measure, which can be used to assess improvements in parenting attitudes that are associated with reduced risk for child abuse and neglect (Bavolek & Keene, 2010; Conners et al., 2006). The AAPI-2 is comprised of 5 constructs, each of which describes a negative parenting attitude that is associated with abuse and/or neglect. Scores are on a 10-point scale. A score from 1-3 indicates problematic parenting attitudes that pose a high risk for child abuse and neglect. A score from 4 and 7 is considered moderate risk, and a score from 8-10 high risk.

We were provided data on 139 AAPI-2 assessments, all of which were administered after 07/01/2021. Of these, 36 were matched pre- and post-test pairs. The average score on the pre-test reveals that PB&J parents were high risk at intake along Construct B: “Parenting lack of an empathic awareness of children’s needs” (Table 4.4). PB&J parents scored moderate risk, on average, for the other 4 constructs at intake. The post-test, administered near discharge, shows that average scores on 4 out of 5 constructs improved over the course of parents’ involvement in the program. The aforementioned “Parenting lack of an empathic awareness of children’s needs” construct, for instance, was reduced to a moderate risk, on average, in the post-test. The one exception was Construct C: “Strong Belief in the Use and Value of Corporal Punishment” construct, which worsened slightly over the course of the program.

Table 4.4.

AAPI-2 pre- and post- assessment scores summary statistics (N=36).

	Mean score		
	Pre-test	Post-test	Difference
Construct A: Inappropriate Parental Expectations	5.5	5.7	0.2
Construct B: Parental Lack of an Empathic Awareness of Children's Needs	3.8	4.6	0.8
Construct C: Strong Belief in the Use and Value of Corporal Punishment	5.7	5.5	-0.2
Construct D: Parent-Child Role Reversal	4.5	5.8	1.3
Construct E: Oppressing Children's Power and Independence	5.3	5.5	0.1

Note: the higher the score, the lower the risk for the child and the healthier the parent's attitudes.

To evaluate whether the observed changes in client AAPI-2 scores are statistically meaningful, we assessed effect size and statistical significance. We assessed effect size by calculating the Cohen's d statistic. Typically, an effect must be d=0.2 or higher to be considered meaningful. An effect size between d=0.2 and d=0.5 is considered small, between d=0.5 to 0.8 is considered medium, and d=0.8 or greater is considered large. The largest effect was for Construct D: "Parent-Child Role Reversal" (d=0.78) (Table 4.5). The only other meaningful, though small, effect was for Construct B "Parenting lack of an empathic awareness of children's needs" (d=0.35). These were also the only two observed changes in client scores that were statistically significant (i.e., unlikely to be the result of random chance).

Table 4.5.

Results of paired sample t-test assessing whether PB&J clients AAPI-2 scores at discharge had significantly improved when compared to intake (N=36).

Item	Mean difference	Std. dev.	t-value	p-value	Cohen's d
Construct A: Inappropriate Parental Expectations	0.17	2.15	0.47	>0.05	0.08
Construct B: Parental Lack of an Empathic Awareness of Children's Needs	0.81	2.29	2.12	<0.05*	0.35
Construct C: Strong Belief in the Use and Value of Corporal Punishment	-0.17	-1.23	-0.83	>0.05	0.14
Construct D: Parent-Child Role Reversal	1.28	1.63	4.7	<0.001**	0.78
Construct E: Oppressing Children's Power and Independence	0.14	2.15	0.39	>0.05	0.07

Note: p-values that are less than 0.05 are marked with an "*" to indicate statistically significant results.

The NCFAS measures family functioning in 8 domains: Environment, Parent Capabilities, Family Interactions, Family Safety, Child Well-Being, Social/Community Life, Self-Sufficiency, and Family Health. Each domain is comprised of multiple subscales, which are evaluated by a social worker, typically while conducting home visits to observe how a family interacts in their home environment. These subscale scores are tallied into a composite overall score for each domain. A score of +2, means the family is above average in that domain, which they label a "Clear Strength". A score of +1 means the family has a "Mild Strength," a score of 0 means the family is "Baseline/Adequate," a score of -1 means the family has a "Mild Problem," a score of -2 means the family has a "Moderate Problem," and a score of -3 means the family has a "Serious Problem" in that domain (NFPN & Kirk, 2005). The NCFAS is used by providers to identify needs, plan services, and set attainable goals. It is also validated for use as a pre- post- test to assess improvements in family functioning following an intervention. Measured improvements in the 8

domains of the NCFAS are correlated with important behavioral health outcomes, such as decreased risk of child placement into foster care due to maltreatment (Kirk et al., 2005; Reed-Ashcraft et al., 2001).

We were provided data for 114 NCFAS assessments. However, only 33 of these were matched, pre- post-test pairs. The pre-test score, which is assessed at intake into the PB&J program, reveals that the average client score was negative in 4 of the 8 domains, corresponding to an average score somewhere between "Baseline/Adequate" and "Mild Problem" (Table 4.6). By contrast, only one of the post-test averages is negative (Self-Sufficiency). Moreover, the difference between pre-test and post-test reveals that average scores in all 8 domains increased from intake to discharge. This is encouraging, as it suggests the PB&J program is succeeding in strengthening family functioning. Table 4.7 reports the results of a paired sample t-test assessing whether the observed changes between pre- and post-test are statistically significant. Three of the observed improvements are statistically significant ($a<0.05$): Environment, Parent Capabilities, and Child Well-Being. These three domains also have the largest effect sizes. The improvement in Child Well-Being had a medium effect size ($d=0.51$), and Environment and Parent Capabilities were small effects ($d=0.42$ and $d=0.44$, respectively).

Table 4.6.

NCFAS pre- and post- assessment score summary statistics for PB&J clients (N=33).

	Mean score		
	Pre-test	Post-test	Difference
A. Environment	-0.10	0.26	0.35
B. Parent Capabilities	0.07	0.48	0.41
C. Family Interactions	-0.30	0.03	0.33
D. Family Safety	0.43	0.57	0.14
E. Child Well-Being	0.09	0.57	0.48
F. Social/Community Life	-0.11	0.15	0.26
G. Self-Sufficiency	-0.30	-0.13	0.17
H. Family Health	0.32	0.57	0.25

Table 4.7.

Results of paired sample t-test assessing whether clients NCFAS scores at discharge had significantly improved compared to intake (N=33).

Domain	Mean difference	Std. dev.	t-value	p-value	Cohen's d
A. Environment	0.35	0.83	2.36	<0.05*	0.42
B. Parent Capabilities	0.41	0.94	2.27	<0.05*	0.44
C. Family Interactions	0.33	1.25	1.44	>0.05	0.26
D. Family Safety	0.14	0.83	0.89	>0.05	0.17
E. Child Well-Being	0.48	0.95	2.42	<0.05*	0.51
F. Social/Community Life	0.26	0.86	1.57	>0.05	0.30
G. Self-Sufficiency	0.17	1.29	0.72	>0.05	0.13
H. Family Health	0.25	0.89	1.49	>0.05	0.28

Note: p-values that are less than 0.05 are marked with an "*" to indicate statistically significant results.

The Protective Factors Survey (PFS) is designed to measure multiple factors that protect against child abuse and neglect as well as to measure improvements in these factors via a pre- post-test design (FRIENDS, 2020, p. 4). It is comprised of 20 items (i.e., questions) and is designed to be administered to the parents or caregivers of at-risk children. These protective factors are divided into four subscales: family functioning/resiliency, social support, concrete support, and nurturing and attachment. Scores on these subscales have been shown to correlate with risk for child abuse and neglect (Sprague-Jones et al., 2020).

We were provided data on 226 PFS assessments. This yielded 52 matched pre- post- pairs, which we used to assess changes in protective factors over the course of clients' involvement in the program. Curiously, the average PFS scores decreased from pre- to post- in 3 out of 4 subscales (Table 4.8). This is the opposite of what we would expect if the program were working as intended. Only one of the results for the PFS has a meaningful effect size that is

statistically significant. This is a slight worsening in family functioning and resiliency (Cohen's d = -0.29; p<0.05) (Table 4.9).

Table 4.8.

PFS pre- and post- assessment scores summary statistics for PB&J clients (N=52).

	Mean score		
	Pre-test	Post-test	Difference
Family Functioning and Resiliency	5.33	5.00	-0.33
Social Support	5.22	5.27	0.04
Concrete Support	4.75	4.71	-0.05
Nurturing and Attachment	6.53	6.46	-0.07

Note: the higher the score, the lower the risk for the child.

Table 4.9.

Results of paired sample t-test to assess whether clients PFS scores at discharge had significantly improved compared when compared with intake (N=52).

Item	Mean difference	Std. dev.	t-value	p-value	Cohen's d
Family Functioning and Resiliency	-0.33	-1.14	-2.08	<0.05*	-0.29
Social Support	0.04	1.33	0.22	>0.05	0.03
Concrete Support	-0.05	-0.50	-0.67	>0.05	-0.10
Nurturing and Attachment	-0.07	-1.00	-0.51	>0.05	-0.07

Note: p-values that are less than 0.05 are marked with an "*" to indicate statistically significant results.

Discussion

The PB&J ACEs program seeks to prevent ACEs by strengthening the functioning of families with young children deemed at high risk for ACEs. To accomplish this, they offer a combination of psychoeducation parenting groups targeting child-rearing knowledge and attitudes, as well as case management targeting a range of other risk factors for ACEs, such as limited financial resources and social supports. The expected short-term outcomes of the program are improved parenting attitudes, family functioning, and protective factors, all of which are expected to contribute to the long-term outcomes of reduced child abuse and neglect and improved developmental health and life outcomes for high-risk children.

Based on the ACEs assessment data we were provided, it appears PB&J is reaching their target population of at-risk youths ages 5 years old or younger. It is also noteworthy that ACEs scores among the parents of these children tend to be quite high, indicating an intergenerational component to ACEs. However, because we were only provided ACEs scores for a fraction of all PB&J clients, we cannot say whether these findings generalize to the broader client population.

Service data reveals that PB&J has generally delivered the services of the planned types and frequency to their clients. In fact, they have slightly exceeded both their target number of clients and minimum number of services delivered per client.

Lastly, an analysis of outcome measures indicates clients have improved along most metrics. Namely, parenting attitudes, as measured by the AAPI-2, and family functioning, as measured by the NCFAS improved along most measures and all statistically significant and large effects were in the positive direction. Results from the PFS outcome measure contradicted this, with only one statistically significant, but small effect in the negative direction, indicating a worsening in family functioning. This finding is unexpected given the measure's overlap with the NCFAS, which showed positive and significant improvements across multiple domains of family functioning. We feel greater confidence should be placed on the NCFAS results, given the larger effect sizes and greater statistical significance of those results. The NCFAS could also be seen as a more objective measure, as it is assessed by a third-party social worker, based on extensive observations of a family in their home compared with the PFS, which is self-reported by a single family member. While future research is warranted to understand why at least one of the PFS subscales contradicts the NCFAS findings, the totality of evidence points to the conclusion that the program is working as intended, both in improving parenting attitudes and enhancing family functioning.

CONCLUSIONS

This report presents the results of ISR's outcome evaluation for 4 BHI ACEs programs: All Faiths, Centro Sávila, New Day, and PB&J. The purpose of an outcome evaluation is to assess the degree to which a program is producing the desired changes in the clients it serves. We assessed this by addressing 3 related research questions for each program:

1) **What are the goals of the program and what is the plan for achieving those goals?**
2) **To what extent is this plan being implemented in actual program activities?**
3) **To what extent are program activities producing the intended outcomes?**

Our findings revealed considerable variability in the 4 ACEs programs in terms of their strategy, implementation, and outcomes. In terms of strategy, some programs focus more on ACEs prevention whereas others focus more on ACEs treatment. However, all seem to have a logical program design that incorporates evidence-based or evidence-informed practices in the services they provide. Some of these practices have more time and evidence behind them, whereas others are more innovative. This diversity is an asset to BHI, provided the various approaches are evaluated for effectiveness and adjusted accordingly.

In terms of implementation, all programs seemed to generally reach their intended target populations. The need for ACEs interventions is high across the clientele of all 4 ACEs programs, as evidenced by data from ACEs, SDOH, and related assessments. However, it is worth noting that multiple programs were missing ACEs scores for a large proportion of their clients. In these instances, we do not know whether the ACEs scores we were provided are representative of the overall client population for those programs. We recommend programs address this gap in ACE assessments moving forward, both for assessing client needs and planning services, and for future evaluation purposes.

All programs appear to deliver the types of services they outlined in program documents, though not all deliver these services at the frequency envisioned. All Faiths exceeded their target in terms of number of clients. They also delivered the most hours of service of any of the programs by a wide margin. Centro Sávila provided a relatively high number of therapy services but provided case management services at well below the intended level. New Day provided services to slightly fewer clients than anticipated. PB&J slightly overshot their intended number of clients and appears to have provided slightly more than their minimum target number of services.

In terms of program outcomes, we only had sufficient data to make a determination about the effectiveness of 2 programs: All Faiths and PB&J. Both programs appear to be broadly achieving the desired outcomes for their clients. For All Faiths, this conclusion is based primarily on our analysis of data from the AAPI-2 assessment, which measures changes in parenting attitudes that are associated with a decreased risk for child abuse and neglect. For PB&J, our outcome

analyses are based on the AAPI-2, the NCFAS, and the PFS. The observed improvements in these measures indicate that the risk for future ACEs has been reduced among clients in both programs. However, it should be noted that a large proportion of All Faiths service hours are for child therapy, which aims to treat existing ACEs, rather than prevent future ACEs. Currently, there is no validated outcome measure utilized by All Faiths to assess the effectiveness of these therapy services. We recommend that All Faiths implement such an outcome measure moving forward.

Unfortunately, we cannot say with any confidence whether the Centro Sávila and New Day ACEs programs are achieving their desired effects in terms of client outcomes. In the case of New Day, this is because the number of clients who have been provided services and administered outcome assessments is insufficient for statistical analyses. In the case of Centro Sávila, this is because the outcome measures they use are not validated. Therefore, we are uncertain what they are measuring.

REFERENCES CITED

All Faiths Children's Advocacy Center. (2021, July). Services. *All Faiths Children's Advocacy Center*. https://www.allfaiths.org/services/

AMA. (2022, August 22). *What is behavioral health?* American Medical Association. https://www.ama-assn.org/delivering-care/public-health/what-behavioral-health

APA. (2017). *What is Cognitive Behavioral Therapy?* Clinical Practice Guideline for the Treatment of Posttraumatic Stress Disorder. https://www.apa.org/ptsd-guideline/patients-and-families/cognitive-behavioral

Apodaca, T. R., & Longabaugh, R. (2009). Mechanisms of change in motivational interviewing: A review and preliminary evaluation of the evidence. *Addiction*, *104*(5), 705–715. https://doi.org/10.1111/j.1360-0443.2009.02527.x

Bavolek, S. J., & Keene, R. G. (2010). *AAPI OnLine Development Handbook The Adult-Adolescent Parenting Inventory (AAPI-2)® Assessing High-Risk Parenting Attitudes and Behaviors*. Family Development Resources, Inc.

Bernalillo County. (2021). *Department of Behavior Health Services: Reduction of Adverse Childhood Experiences (ACEs)*. Bernalillo County, Behavior Health Services. https://www.bernco.gov/department-behavioral-health-services/reduction-of-adverse-childhood-experiences-aces/

Bernalillo County. (2023). *About Us*. County Manager. https://www.bernco.gov/county-manager/behavioral-health-initiative/about-the-behavioral-health-initiative/

Bettinger, E. P., & Baker, R. B. (2014). The Effects of Student Coaching: An Evaluation of a Randomized Experiment in Student Advising. *Educational Evaluation and Policy Analysis*, *36*(1), 3–19. https://doi.org/10.3102/0162373713500523

BHI. (2021a). *Behavioral Health Initiative Service Request Form RFP 29-20-JZ. ACEs Prevention Programs—A New Day.* County of Bernalillo.

BHI. (2021b). *Behavioral Health Initiative Service Request Form RFP 29-20-JZ. ACEs Prevention Programs—Centro Sávila.* County of Bernalillo.

BHI. (2021c). *Behavioral Health Intitiative Service Request Form: RFP 29-20-JZ. ACES Prevention Programs—All Faiths.* County of Bernalillo.

BHI. (2021d). *Behavioral Health Intitiative Service Request Form: RFP 29-20-JZ. ACES Prevention Programs—PB&J Family Services.* County of Bernalillo.

Bischof, G., Bischof, A., & Rumpf, H.-J. (2021). Motivational Interviewing: An evidence-based approach for use in medical practice. *Deutsches Ärzteblatt International*, *118*, 109–115. https://doi.org/10.3238/arztebl.m2021.0014

Brown, D. W., Anda, R. F., Tiemeier, H., Felitti, V. J., Edwards, V. J., Croft, J. B., & Giles, W. H. (2009). Adverse childhood experiences and the risk of premature mortality. *American Journal of Preventive Medicine*, *37*(5), 389–396. https://doi.org/10.1016/j.amepre.2009.06.021

CDC. (2019). *Adverse Childhood Experiences (ACEs) Prevention Resource for Action: A Compilation of the Best Available Evidence*. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. https://www.cdc.gov/violenceprevention/pdf/ACEs-Prevention-Resource_508.pdf

CDC. (2023, June 29). *Risk and Protective Factors*. Centers for Disease Control and Prevention: Violence Prevention. https://www.cdc.gov/violenceprevention/aces/riskprotectivefactors.html

Chandler, G. E., Roberts, S. J., & Chiodo, L. (2015). Resilience Intervention for Young Adults With Adverse Childhood Experiences. *Journal of the American Psychiatric Nurses Association*, *21*(6), 406–416. https://doi.org/10.1177/1078390315620609

Choi, C., Mersky, J. P., Janczewski, C. E., Plummer Lee, C.-T., Davies, W. H., & Lang, A. C. (2020). Validity of an expanded assessment of adverse childhood experiences: A replication study. *Children and Youth Services Review*, *117*, 105216. https://doi.org/10.1016/j.childyouth.2020.105216

Coates, S. W. (2016). Can Babies Remember Trauma? Symbolic Forms of Representation in Traumatized Infants. *Journal of the American Psychoanalytic Association*, *64*(4), 751–776. https://doi.org/10.1177/0003065116659443

Cohen, J. A., & Mannarino, A. P. (2015). Trauma-focused Cognitive Behavior Therapy for Traumatized Children and Families. *Child and Adolescent Psychiatric Clinics of North America*, *24*(3), 557–570. https://doi.org/10.1016/j.chc.2015.02.005

Conners, N. A., Whiteside-Mansell, L., Deere, D., Ledet, T., & Edwards, M. C. (2006). Measuring the potential for child maltreatment: The reliability and validity of the Adult Adolescent Parenting Inventory—2. *Child Abuse & Neglect*, *30*(1), 39–53. https://doi.org/10.1016/j.chiabu.2005.08.011

CPI. (2015). *Bernalillo County Behavioral Health Business Plan* (Bernalillo County Board of County Commissioners). Community Partners, Inc.

Cross, D., Fani, N., Powers, A., & Bradley, B. (2017). Neurobiological Development in the Context of Childhood Trauma. *Clinical Psychology : A Publication of the Division of Clinical Psychology of the American Psychological Association*, *24*(2), 111–124. https://doi.org/10.1111/cpsp.12198

Edwards, O. W., Mumford, V. E., & Serra-Roldan, R. (2007). A Positive Youth Development Model for Students Considered At-Risk. *School Psychology International*, *28*(1), 29–45. https://doi.org/10.1177/0143034307075673

Ellis, B. J., Bianchi, J., Griskevicius, V., & Frankenhuis, W. E. (2017). Beyond Risk and Protective Factors: An Adaptation-Based Approach to Resilience. *Perspectives on Psychological Science*, *12*(4), 561–587. https://doi.org/10.1177/1745691617693054

Family Development Resources, Inc. (2023). *Nurturing Parenting Programs and Over 30 Years of Evidence*. Nurturing Parenting. https://www.nurturingparenting.com/nppsevidence.html

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, *14*(4), 245–258. https://doi.org/10.1016/s0749-3797(98)00017-8

Fergus, S., & Zimmerman, M. A. (2005). Adolescent Resilience: A Framework for Understanding Healthy Development in the Face of Risk. *Annual Review of Public Health*, *26*(1), 399–419. https://doi.org/10.1146/annurev.publhealth.26.021304.144357

Finkelhor, D., Shattuck, A., Turner, H., & Hamby, S. (2015). A revised inventory of Adverse Childhood Experiences. *Child Abuse & Neglect*, *48*, 13–21. https://doi.org/10.1016/j.chiabu.2015.07.011

Fortson, B. L., Klevens, J., Merrick, M. T., Gilbert, L. K., & Alexander, S. P. (2016). *Preventing child abuse and neglect: A technical package for policy, norm, and programmatic activities*. National Center for Injury Prevention and Control (U.S.). Division of Violence Prevention. Centers for Disease Control and Prevention. https://doi.org/10.15620/cdc.38864

FRIENDS. (2020). *The Protective Factors Survey User's Manual*. FRIENDS National Center for Community Based Child Abuse Prevention.

Gubbels, J., van der Put, C. E., & Assink, M. (2019). The Effectiveness of Parent Training Programs for Child Maltreatment and Their Components: A Meta-Analysis. *International Journal of Environmental Research and Public Health*, *16*(13), 2404. https://doi.org/10.3390/ijerph16132404

Hughes, K., Bellis, M. A., Hardcastle, K. A., Sethi, D., Butchart, A., Mikton, C., Jones, L., & Dunne, M. P. (2017). The effect of multiple adverse childhood experiences on health: A systematic review and meta-analysis. *The Lancet. Public Health*, *2*(8), e356–e366. https://doi.org/10.1016/S2468-2667(17)30118-4

Hughes, K., Ford, K., Bellis, M. A., Glendinning, F., Harrison, E., & Passmore, J. (2021). Health and financial costs of adverse childhood experiences in 28 European countries: A systematic review and meta-analysis. *The Lancet Public Health*, *6*(11), e848–e857. https://doi.org/10.1016/S2468-2667(21)00232-2

Jarrett, M., Thornicroft, G., Forrester, A., Harty, M., Senior, J., King, C., Huckle, S., Parrott, J., Dunn, G., & Shaw, J. (2012). Continuity of care for recently released prisoners with mental illness: A pilot randomised controlled trial testing the feasibility of a Critical Time Intervention. *Epidemiology and Psychiatric Sciences*, *21*(2), 187–193. https://doi.org/10.1017/S2045796011000783

Jefferies, P., McGarrigle, L., & Ungar, M. (2019). The CYRM-R: A Rasch-Validated Revision of the Child and Youth Resilience Measure. *Journal of Evidence-Based Social Work*, *16*(1), 70–92. https://doi.org/10.1080/23761407.2018.1548403

Jones, T. M., Nurius, P., Song, C., & Fleming, C. M. (2018). Modeling life course pathways from adverse childhood experiences to adult mental health. *Child Abuse & Neglect*, *80*, 32–40. https://doi.org/10.1016/j.chiabu.2018.03.005

Kasprow, W. J., & Rosenheck, R. A. (2007). Outcomes of critical time intervention case management of homeless veterans after psychiatric hospitalization. *Psychiatric Services (Washington, D.C.)*, *58*(7), 929–935. https://doi.org/10.1176/ps.2007.58.7.929

Katisi, M., Jefferies, P., Dikolobe, O., Moeti, O., Brisson, J., & Ungar, M. (2019). Fostering Resilience in Children Who have been Orphaned: Preliminary Results from the Botswana Balekane EARTH Program. *Child & Youth Care Forum*, *48*(4), 585–601. https://doi.org/10.1007/s10566-019-09497-6

Kirk, R. S., Kim, M. M., & Griffith, D. P. (2005). Advances in the Reliability and Validity of the North Carolina Family Assessment Scale. *Journal of Human Behavior in the Social Environment*, *11*(3–4), 157–176. https://doi.org/10.1300/J137v11n03_08

Lieberman, A. F., & Van Horn, P. (2009). Giving voice to the unsayable: Repairing the effects of trauma in infancy and early childhood. *Child and Adolescent Psychiatric Clinics of North America*, *18*(3), 707–720. https://doi.org/10.1016/j.chc.2009.02.007

Lorenzo-Luaces, L., Keefe, J. R., & DeRubeis, R. J. (2016). Cognitive-behavioral therapy: Nature and relation to non-cognitive behavioral therapy. *Behavior Therapy*, *47*(6), 785–803. https://doi.org/10.1016/j.beth.2016.02.012

Maslow, G. R., & Chung, R. J. (2013). Systematic Review of Positive Youth Development Programs for Adolescents With Chronic Illness. *Pediatrics*, *131*(5), e1605–e1618. https://doi.org/10.1542/peds.2012-1615

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, *56*(3), 227–238. https://doi.org/10.1037/0003-066X.56.3.227

Merrick, M. T., Ford, D. C., Ports, K. A., Guinn, A. S., Chen, J., Klevens, J., Metzler, M., Jones, C. M., Simon, T. R., Daniel, V. M., Ottley, P., & Mercy, J. A. (2019). Vital Signs: Estimated Proportion of Adult Health Problems Attributable to Adverse Childhood Experiences and Implications for Prevention - 25 States, 2015-2017. *MMWR. Morbidity and Mortality Weekly Report*, *68*(44), 999–1005. https://doi.org/10.15585/mmwr.mm6844e1

Metzler, M., Merrick, M. T., Klevens, J., Ports, K. A., & Ford, D. C. (2017). Adverse childhood experiences and life opportunities: Shifting the narrative. *Children and Youth Services Review*, *72*, 141–149. https://doi.org/10.1016/j.childyouth.2016.10.021

Morgan, C. A., Chang, Y.-H., Choy, O., Tsai, M.-C., & Hsieh, S. (2021). Adverse Childhood Experiences Are Associated with Reduced Psychological Resilience in Youth: A

Systematic Review and Meta-Analysis. *Children*, *9*(1), 27. https://doi.org/10.3390/children9010027

New Day. (2020). *New Day: Life Skills Coaching Program Overview*. New Day.

New Day. (2021). *New Day Life Skills Coaching Program—Handbook & Procedure Manual*. New Day.

NFPN, & Kirk, R. S. (2005). *NCFAS-G. North Carolina Family Assessment Scale for General Services*. The National Family Preservation Network (NFPN).

Nuño, V. L., Wertheim, B. C., Murphy, B. S., Glasser, H., Wahl, R. A., & Roe, D. J. (2020). The online nurtured heart approach to parenting: A randomized study to improve ADHD behaviors in children ages 6–8. *Ethical Human Psychology and Psychiatry*, *22*(1), 169–186.

Nurtured Heart Institute. (2022, April 1). *The 3 Stands™*. https://nurturedheartinstitute.com/the-3-stands/

Peterson, C., Florence, C., & Klevens, J. (2018). The economic burden of child maltreatment in the United States, 2015. *Child Abuse & Neglect*, *86*, 178–183. https://doi.org/10.1016/j.chiabu.2018.09.018

Ramirez de Arellano, M. A., Lyman, D. R., Jobe-Shields, L., George, P., Dougherty, R. H., Daniels, A. S., Ghose, S. S., Huang, L., & Delphin-Rittmon, M. E. (2014). Trauma-Focused Cognitive Behavioral Therapy: Assessing the Evidence. *Psychiatric Services (Washington, D.C.)*, *65*(5), 591–602. https://doi.org/10.1176/appi.ps.201300255

Read, J., Fosse, R., Moskowitz, A., & Perry, B. (2014). The traumagenic neurodevelopmental model of psychosis revisited. *Neuropsychiatry*, *4*(1), Article 1. https://doi.org/10.2217/NPY.13.89

Reed-Ashcraft, K., Kirk, R. S., & Fraser, Mark W. (2001). The Reliability and Validity of the North Carolina Family Assessment Scale. *Research on Social Work Practice*, *11*(4), 503–520.

Reeves, E. (2015). A synthesis of the literature on trauma-informed care. *Issues in Mental Health Nursing*, *36*(9), 698–709. https://doi.org/10.3109/01612840.2015.1025319

Reidy, D. E., Niolon, P. H., Estefan, L. F., Kearns, M. C., D'Inverno, A. S., Marker, C. D., & Merrick, M. T. (2021). Measurement of Adverse Childhood Experiences: It Matters. *American Journal of Preventive Medicine*, *61*(6), 821–830. https://doi.org/10.1016/j.amepre.2021.05.043

Resilience Research Center. (2019). *Child and Youth Resilience Measure (CYRM-R) & Adult Resilience Measure (ARM-R): Manual 2.2*. Dalhousie University.

Roth, A. (2019). *New Mexico Substance Abuse Resource Directory*. NMDOH. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://nmtracking.doh.nm.gov/contentfile/pdf/health/birth/defects/substance%20abuse%20treatment.pdf

Santiago, A. (2019). *Centro Sávila—Critical Time Intervention Program*.

Sheffler, J. L., Piazza, J. R., Quinn, J. M., Sachs-Ericsson, N. J., & Stanley, I. H. (2019). Adverse childhood experiences and coping strategies: Identifying pathways to resiliency in adulthood. *Anxiety, Stress, and Coping*, *32*(5), 594–609. https://doi.org/10.1080/10615806.2019.1638699

Sprague-Jones, J., Singh, P., Rousseau, M., Counts, J., & Firman, C. (2020). The Protective Factors Survey, 2nd Edition: Establishing validity and reliability of a self-report measure of protective factors against child maltreatment. *Children and Youth Services Review*, *111*, 104868. https://doi.org/10.1016/j.childyouth.2020.104868

Stroud, D., & Ford, K. (2021, November). *Agency Overview—All Faiths Children's Advocacy Center: Healding Kids & Families in Crisis.*

Susser, E., Valencia, E., Conover, S., Felix, A., Tsai, W. Y., & Wyatt, R. J. (1997). Preventing recurrent homelessness among mentally ill men: A "critical time" intervention after discharge from a shelter. *American Journal of Public Health*, *87*(2), 256–262. https://doi.org/10.2105/ajph.87.2.256

Swedo, E. A. (2023). Prevalence of Adverse Childhood Experiences Among U.S. Adults—Behavioral Risk Factor Surveillance System, 2011–2020. *MMWR. Morbidity and Mortality Weekly Report*, *72*. https://doi.org/10.15585/mmwr.mm7226a2

The Center for the Advancement of Critical Time Intervention. (2014). *Center for the Advancement of Critical Time Intervention—CTI Model*. Center for the Advancement of Critical Time Intervention. Silberman School of Social Work. https://www.criticaltime.org/cti-model/

Tonigan, A., Guerin, P., & Haugaard, S. (2021). *Bernalillo County Behavioral Health Initiative: Adverse Childhood Experiences* (Prepared for: Bernalillo County Department of Behavioral Health Services). University of New Mexico.

Vanderbilt-Adriance, E., & Shaw, D. S. (2008). Protective Factors and the Development of Resilience in the Context of Neighborhood Disadvantage. *Journal of Abnormal Child Psychology*, *36*(6), 887–901. https://doi.org/10.1007/s10802-008-9220-1

Zhang, L., & Mersky, J. P. (2022). Bidirectional Relations between Adverse Childhood Experiences and Children's Behavioral Problems. *Child and Adolescent Social Work Journal*, *39*(2), 183–193. https://doi.org/10.1007/s10560-020-00720-1