

# Therapeutic Intervention, Education, & Skills

Findings from an intensive family  
preservation program



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# List of Acronyms

<b>AAPI-B</b>	Adult-Adolescent Parenting Inventory
<b>ACE</b>	Adverse Childhood Experience
<b>ACF</b>	Administration for Children and Families
<b>AEA</b>	American Evaluation Association
<b>ASI</b>	Addiction Severity Index
<b>BRIEF/-P</b>	Behavior Rating Inventory for Executive Functioning
<b>BSF</b>	Building Strong Families
<b>CASA</b>	Court Appointed Special Advocates
<b>CEBC</b>	California Evidence-Based Clearinghouse
<b>CBCL</b>	Child Behavior Checklist
<b>CCADC</b>	Coffee County Anti-Drug Coalition
<b>CES-D</b>	Center for Epidemiologic Studies- Depression Scale
<b>CQI</b>	Continuous Quality Improvement
<b>CRI</b>	Centerstone Research Institute
<b>CSM</b>	Controlled Substance Monitoring
<b>CWLA</b>	Child Welfare League of America
<b>EBP</b>	Evidence-based Practice
<b>ESL</b>	Enrollment and Services Log
<b>FFA</b>	Family Functioning Adult
<b>FMLA</b>	Federal Medical Leave Act
<b>IFPS</b>	Intensive Family Preservation Services
<b>IHT</b>	In-home Therapist
<b>ITSP</b>	Infant-Toddler Sensory Profile
<b>MOU</b>	Memorandum of understanding
<b>NCFAS</b>	North Carolina Family Assessment Scale
<b>NCSACW</b>	National Center on Substance Abuse and Child Welfare
<b>NFPN</b>	National Family Preservation Network
<b>OAISIS</b>	Outcome and Impact Study Information System
<b>OTP</b>	Opioid Treatment Program
<b>PI</b>	Principal Investigator
<b>PSAT</b>	Program Sustainability Assessment Tool
<b>PSI</b>	Parenting Stress Index
<b>RA</b>	Regional Administrator (for TDCS)
<b>RCC</b>	Regional Collaborative Council
<b>RDA</b>	Recovery Domain Adult
<b>RPG</b>	Regional Partnership Grants
<b>SACWIS</b>	Statewide Automated Child Welfare Information System
<b>SD</b>	Standard Deviation
<b>SDM</b>	Safety Decision Making assessment

<b>SNAP</b>	Supplemental Nutrition Assistance Program
<b>SOTA</b>	State Opioid Treatment Authority
<b>TANF</b>	Temporary Aid to Needy Families
<b>TAOC</b>	Tennessee Administrative Office of the Courts
<b>TDCS</b>	Tennessee Department of Children's Services
<b>TDH</b>	Tennessee Department of Health
<b>TDHS</b>	Tennessee Department of Human Services
<b>TDMHSAS</b>	Tennessee Department of Mental Health and Substance Abuse Services
<b>TDOE</b>	Tennessee Department of Education
<b>TFACTS</b>	Tennessee Family and Child Tracking System
<b>TIES</b>	Therapeutic Intervention, Education, and Skills
<b>TSC-40</b>	Trauma Symptom Checklist-40
<b>TSCYC</b>	Trauma Symptoms Checklist for Young Children

# Executive Summary

## Intervention & Target Population

The Therapeutic Intervention, Education, and Skills (TIES) program was an evidence-informed intervention that blended in-home intensive family preservation services (IFPS) with Seeking Safety to address the complex needs of families with children at risk of out-of-home placement due to parental substance use. Community partnerships, including an Advisory/Steering Committee and a Regional Collaborative, provided the infrastructure to ensure successful delivery of TIES services. Over the course of the 5-year grant (2012-2017), TIES' in-home therapists provided services to 305 families, including 516 adults and 627 children, in 7 rural and urban middle Tennessee counties. Demand for TIES services was high, and the program was able to exceed its original enrollment target of 300 families.



TIES service counties

TIES focal children (n=305) were white, younger than 5 years old, and 52% male with 11% diagnosed with neonatal abstinence syndrome (NAS). Primary caregivers (n=305) were white, female, 20-29 years of age, and high school graduates earning less than \$10,000 in the last year. 83% of families completed one or both of the TIES interventions. 80% of a family's time was spent in the IFPS intervention.

## Outcomes

- TIES caregivers showed significant improvements in **parenting capabilities** and significant decreases in **substance use**.
- At 12 months post services, **89%** of the focal children **remained in their homes** and **90%** had **no additional substantiated abuse** allegations.
- Using a matched dataset, the **odds of out-of-home placement** were **36% less for the TIES focal children**. That is, the odds of experiencing a removal in the TIES group were .64:1.
  - This was further reduced for children assigned to the more severe TDCS "investigation" track. The odds of out-of-home placement were 58% less for the TIES focal children compared to children in this track who did not receive TIES. That is, the odds of experiencing a removal in the TIES investigation group are .42:1.

# 1. Program Overview

TIES addressed the complex needs of families with children at-risk of out-of-home placement due to parental substance use.

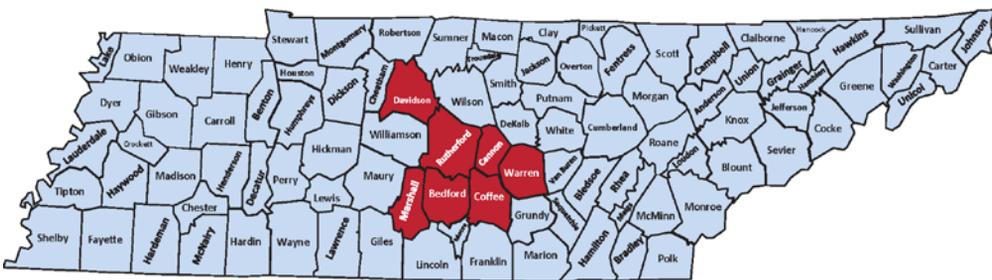
## Target Population & Service Areas

The TIES program was created to address the complex needs of families with children (age 0 to 17) who are at-risk of or in out-of-home placement due to parental substance use. The geographic service region included **7 urban and rural Middle Tennessee counties**: Bedford, Cannon, Coffee, Davidson, Marshall, Rutherford, and Warren.

This region and population were chosen to respond to the increasing connection between children in out-of-home placements and parent/caretaker substance use in the target area. In 2011, parent/caregiver substance abuse issues were a primary factor in more than half of all out-of-home placements in Middle Tennessee. This percentage is likely a low estimate because substance abuse indicators can be underreported by parents/caregivers and missed by case workers. Of the children in Tennessee state custody, those coming from

substance-affected families experienced more severe and chronic abuse and were more likely stay in, return to, and have siblings in out-of-home placement. Studies also showed that children of substance-abusing parents often turn to substance abuse themselves to escape the emotional trauma of abuse or neglect.

The TIES in-home therapists (IHTs) served **305** diverse families over the 5-year grant cycle, meeting its service number agreement with ACF. Services were provided to **516 adults** and **627 children** in total. TIES was able to maintain the parameters originally established within our grant proposal; however, we noted a trend in referrals toward very young children who had been diagnosed with Neonatal Abstinence Syndrome (NAS) at birth. These children were prenatally exposed to substances, usually opioids.



TIES service counties

## Overview of the Regional Partnership

The TIES project built upon collaborative regional partnerships that had been established under a previous grant from the Administration for Children and Families (ACF), Building Strong Families in Rural Tennessee (BSF). The latter grant project, led by the Tennessee Department of Mental Health and Substance Abuse Services (TDMHSAS) – the State’s mental health authority and substance abuse authority, entered into memorandums of understanding (MOUs) with four other partners: the Tennessee Department of Children’s Services (TDCS), the State’s child welfare agency; the Tennessee Administrative Office of the Courts (TAOC), the State’s juvenile/criminal justice system representative; Centerstone Community Mental Health Center, Inc., the nonprofit that provided evidence-informed direct services to families served through the grant; and Centerstone Research Institute (CRI), Centerstone’s research arm that provided high quality evaluation for the project. This partnership was unique in that it was comprised of State departments and community-based entities.

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Through these partnerships, a Regional Collaborative Council (RCC) and an Advisory/Steering Committee had been established. Early efforts had

shown that rural counties worked more effectively together while work with urban counties was more effective when the TIES’ Project Director/Principal Investigator (PD/PI) and program management joined the existing community-based structures within these counties.



PD/PI; Sarah Hailey, CCBE; Kristina Clark, CCADC; and Angie McKinney Jones, TDMHSAS – regional members at annual conference

As a result, the RCC focused on providing agency networking, education, training, and other supports for families in the rural counties served by TIES. For example, regional council members spread the word about TIES services and worked collaboratively in helping to locate and/or connect TIES’ families to supportive services. TIES’s therapists might also assist regional agencies such as Court Appointed Special Advocates (CASA) in their work with jointly engaged families.

The Council’s vision statement adequately described what they wanted to achieve for families in their communities: “That all children and families will have the resources, services, and supports to forever be safe, strong, and unified.”

For most of the grant cycle, the RCC met at least quarterly. Participation in the RCC was open, but a number of entities remained active throughout the grant cycle, especially when there was organization for the regional conference that had begun through the original BSF grant. Regular participants included the Coffee County Board of Education (CCBE), Coffee County Anti- Drug Coalition (CCADC), area health departments (city and county), KidLink, Child Care Resource and Referral Network, Court Appointed Special Advocates (CASA), South Central TDCS, and Upper Cumberland TDCS.

These regular participants were active during the early grant. It should further be noted that the RCC continued to support and sustain the regional information and education conference that began under the previous grant.

The Advisory/Steering Committee provided guidance in project implementation and worked on sustainability. In fact, this group received sustainability training from consultants with the National Center on Substance Abuse and Child Welfare (NCSACW). Besides representation from departments/ agencies with MOUs, this Committee



NCSACW consultants presenting at the 2014 sustainability training.



Commissioner Marie Williams (then Deputy Commissioner) providing greetings during sustainability training.



Members of the Advisory/Steering Committee work on the TIES mission and vision statement at a quarterly meeting.

included representation from the Bureau of TennCare, the state’s Medicaid authority; the Governor’s Children’s Cabinet; the Tennessee Department of Education (TDOE); the Tennessee Department of Human Services (TDHS), the state’s social services authority; and the Tennessee Department of Health (TDH).

Sustaining efforts focused on policy, system and/or other programmatic changes as well as identifying other funding streams to keep the project going past the end of the grant cycle. This Committee met at least quarterly and was comprised of about 20 individuals on average. Similar to the RCC, the Advisory/Steering Committee created their vision for TIES: “That Tennessee families and communities are healthy, resilient, safe, empowered, and free of substance abuse.” The vision would be supported and advanced by developing trauma-responsive strategies to ensure families receive evidenced-based family preservation services that are individualized to meet their needs, coordinated across systems, and accessible within their communities. To expand the visibility of TIES, the Committee further assisted in the design and approval of a logo, which was also used to create a banner for displays.



**TIES**  
THERAPEUTIC INTERVENTION  
EDUCATION & SKILLS

**Because  
Substance Use  
Affects Children  
& Families**

**TIES**  
THERAPEUTIC INTERVENTION  
EDUCATION & SKILLS

**Family-Focused  
Trauma-Informed  
Intensive In-Home Services**

Serving the counties of: Bedford, Cannon, Coffee, Davidson, Marshall, Rutherford, Warren

**TN** Department of  
**Mental Health &  
Substance Abuse Services**

In partnership with:  
Bureau of TennCare  
Centerstone of Tennessee  
Centerstone Research Institute  
TN Department of Children’s  
Services



The TIES logo (above) and banner (left).

# 2. Local Evaluation Overview

## Summary of Purpose and Approach

Centerstone Research Institute (CRI) was contracted to conduct the local evaluation of the TIES program. The purpose of the evaluation was to assess the degree to which the Intensive Family Preservation Services (IFPS) and Seeking Safety models were implemented to fidelity and the effect of these combined models on family, caregiver, and child outcomes. The local evaluation also sought to examine program costs and track changes in interagency partnerships and collaboration. The results of the evaluation were intended to monitor program implementation and inform

program improvements. The general design for the local evaluation included both process and outcome indicators and longitudinal data collection at 6 time points to assess retention of family, caregiver, and child outcomes over time. Secondary data from the Department of Children’s Services was also used to form a matched comparison group to assess differences in out-of-home placement and maltreatment between children who participated in TIES and those who did not. The evaluation protocol was reviewed and approved by the TDMHSAS institutional review board.

## Evaluation Research Questions

Process	<ul style="list-style-type: none"> <li>• Who was enrolled in the TIES program?</li> <li>• How many families completed the program?</li> <li>• What services and at what dosage did families receive? Did this vary among specific kinds of families?</li> </ul>
Implementation	<ul style="list-style-type: none"> <li>• Did in-home therapists adhere to IFPS and Seeking Safety model fidelity standards?</li> <li>• Were program participants and referents satisfied with TIES services?</li> <li>• Did collaboration between program partners improve?</li> <li>• What was the cost to implement the TIES program?</li> </ul>
Outcomes	<ul style="list-style-type: none"> <li>• Does the TIES program result in improved family functioning?</li> <li>• Does the TIES Program result in improved outcomes for caregivers related to:               <ul style="list-style-type: none"> <li>○ Mental health symptomatology?</li> <li>○ Substance use?</li> <li>○ Parenting?</li> </ul> </li> <li>• Does the TIES Program result in improved outcomes for children/youth related to:               <ul style="list-style-type: none"> <li>○ Substantiated maltreatment after TIES case closure?</li> <li>○ Out-of-home placement after TIES case closure?</li> </ul> </li> <li>• What program/contextual factors were associated with outcomes?</li> <li>• Are individual factors related to outcomes (e.g. location, gender, age)?</li> <li>• How durable were the effects?</li> </ul>

### 3. Project Implementation & Program Strategies

The TIES program offered an evidence-based, trauma-focused, culturally competent continuum of outreach, treatments, education/ counseling, and supportive services for children and families utilizing all components of the high fidelity Intensive Family Preservation Services (IFPS) model in conjunction with Seeking Safety. Program staff used these interventions throughout the 5-year grant period.

#### Intensive Family Preservation Services

IFPS was designed to support families in crisis in which children are either at imminent risk of placement or have been placed outside their homes.

IFPS was designed to support families in crisis.

These services have shown to be effective for birth and adoptive families, as well as reunification cases and placement prevention. The goal is to keep children safe and avoid both unnecessary removal and unnecessarily long separations from family in out-of-home care. IFPS programs share the values, and program characteristics outlined below.

##### Beliefs and Values

- Child safety is the highest priority.
- The focus of service is the family.
- Whenever safely possible, children are better off with their own families.
- Families with issues can change.
- Families and IFPS staff function as colleagues.

- Families' values and beliefs must be respected.
- IFPS staff must instill hope for families.
- Crisis situations are opportunities for change.

##### Program Characteristics

- Respond to families within 24 hours
- Access to staff 24/7
- Small caseloads (2 to 3 families)
- Intensive intervention (8 to 10 hours per week as needed)
- Service delivery in family's home/community
- Time-limited services (4 to 6 weeks), to be followed by other supportive services
- Hard & soft services delivered by the same staff person
- Help families forge community linkages
- Goal-oriented with "limited" objectives
- Focused on teaching skills/empowering

The IFPS component of TIES was designed to last four to six weeks. Therapists assumed a caseload of 2-3 families and provided assessments (including developmental and psychosocial), counseling, and crisis intervention while developing community support. TIES' therapists spent a minimum of 8-10 hours per week in direct contact with each family.

IFPS is trauma-informed and culturally competent which allowed for a wide variety of other evidenced-based interventions within the model. Specific interventions utilized by the TIES program included 1-2-3 Magic, Living in Balance, cognitive behavioral therapy (CBT), trauma-focused (TF)-CBT, Motivational Interviewing, Incredible Years, relapse prevention strategies, and wrap-around services.

## Seeking Safety

Seeking Safety is an evidence-based, present-focused counseling model designed to help people attain safety from trauma and/or substance abuse. It can be conducted in group (any size) and/or individual modality. It is an extremely safe model as it directly addresses both trauma and addiction, but without requiring clients to delve into the trauma narrative (the detailed account of disturbing trauma memories), thus making it relevant to a very broad range of clients and easy to implement (<https://www.treatment-innovations.org/ss-description.html>, retrieved 4/2/18). TIES' therapists provided 11 modules, including 5 required modules, for families for up to 2 weeks following delivery of IFPS service components. The 5 required modules were Safety, PTSD: Taking Back Your Power, Detaching from Emotional Pain: Grounding, When Substances Control You, and Asking for Help. Initially, Seeking Safety was an optional offering to families. Thus, parents were allowed to choose whether they wanted to continue

services using Seeking Safety after completing IFPS. However, moving people into Seeking Safety as an optional component proved difficult.

**Seeking Safety is an EBP designed to help people attain safety from trauma and/or substance abuse.**

In fact, this option resulted in no families choosing to participate in Seeking Safety. Internal discussions as well as TA activities and consultation with the Seeking Safety trainer led us to tailor the way we introduced the Seeking Safety intervention. TIES' staff began referring to Seeking Safety as the second part of an integrated intervention. This program tweak in late Year 1 resulted in an increase in the number of families agreeing to participate in Seeking Safety. Hence, TIES was delivered as a blended model, IFPS plus Seeking Safety, that would require a family's engagement for 6-8 weeks.

## 4. RPG Collaborative Challenges & Successes

### Assessing the Collaborative Partnership's Experience

#### Partner engagement

MOU partners were always engaged in TIES activities. There were also other advisory and regional group entities that were consistently represented in these collaboratives. Substance use treatment providers, however, typically were not represented on the advisory or regional group, despite attempts to engage them. These entities tended to support education and training sponsored or promoted by TIES, but did not get involved in the quarterly activities. Special efforts were made to engage a substance use treatment provider that served TIES' adults in rural areas, but we were unsuccessful. A faith-based program severed its connection with the council when it ceased offering the Celebrate Recovery curriculum. However, continued persistence by the PD/PI resulted in resumed representation.

#### Missing partners

We believe that all professional partners with a vested interest in keeping children safely with their parents and out of custody when there was parental substance abuse were appropriately represented on the TIES' collaboratives. Having a family voice, however, may have increased the probability of sustaining the project at the end of the grant cycle. The family member would have provided a face for the issue. Parents were included in

focus groups, videos, and on panels to tell their story. They were never included on the Advisory/Steering Committee or the Regional Collaborative Council.

#### Leadership support of RPG work

We had conversations with at least three State departments about sustaining the TIES grant project. Unfortunately, the potential funding amount kept TIES from securing financial assistance post grant. Funding through a single department was not a viable sustainability option usually because the grant amount was insufficient. Evidence-informed in-home services as provided by TIES were expensive, costing approximately \$9,145.55 per family. Potential funding tended to be substantially too low to sustain TIES in even a single county for a year.

#### Program Staff/Leadership Outreach

TIES' administrative staff, particularly the Program Coordinator (PC), devoted a substantial amount of time building and maintaining trusting relationships in the counties served by the program. In fact, the PC remained available to staff and community stakeholders 24/7, just as therapists are available to their client families. The PC handles calls about referrals, the program, and other provider-program offerings, and is visible at community events.

The dividends of this outreach continued to be a stable referral base and increased community support for TIES' families.

TIES' therapists also spent a tremendous amount of time reaching out to the main referral source, the Tennessee Department of Children's Services (TDCS). Therapists made contact with the TDCS worker who referred the case at least weekly to discuss safety, treatment planning, and progress the family had made. TIES' program staff also collaborated with a wide range of other service providers in the communities they served, including long-term therapists, case managers, medical doctors, and concrete service providers, as well as other resources such as churches and food banks. The list of actual supports varies depending upon the needs identified by the in-home therapist (IHT) during his or her intensive work with each family and the community served. Connecting families to services, including long-term services, is a primary feature of TIES.

Similar to many programs that demand an inordinate amount of staff time, TIES experienced turnover. On average, TIES staff stayed with the program 18 to 24 months. In some cases, staff left the program due to maternity leave and sought less stressful work after the baby was born. Other reasons for leaving included finding a higher paying job or returning to academia to pursue a higher degree. It should be noted, however, that TIES remained fully staffed throughout Year 5. Therapists

chose to be in place in the event of new funding that would give them the opportunity to continue to deliver effective evidence-based services to eligible families.

Turnover tended not to negatively impact program implementation. Therapists made every reasonable effort to complete a case before leaving the program. Furthermore, the integration of staff into Centerstone's behavioral health teams was very helpful in being able to fill therapist vacancies quickly. Employees on those teams often had master's degrees and had been exposed to training in at least one of the evidence-based practices (EBPs) used with TIES' families. Therefore, staff training time was shortened because individuals in the behavioral health teams would choose to work with the TIES' program.

## Lessons Learned

**We achieved more in our sustainability efforts with TIES than with our previous grant.** No entity had ever talked with us about even the possibility of funding the program. We provided lots of data, including parent stories, stories from TDCS workers, and support from the National Child Preservation Network (NFPN). The TIES' PD/PI helped create and foster relationships with state decision-makers for our advisory committee. Information, education, and training, along with the fact that "community trumps", kept regular participation on the RCC.

Our sustainability efforts received the attention we desired. **Potential funding amounts needed to be larger and to become available sooner rather than later.**

### Clinically-related Collaborative Activities

TIES maintained close links to the local community. Community outreach included contacts by program staff in addition to the work of the PD/PI and/or Co-PD/PI of the Tennessee Department of Mental Health and Substance Abuse Services (TDMHSAS), the lead agency.

TIES administrative staff members devoted time to building and maintaining trusting relationships in the counties served by the project. The Program Director (PD) and PC were available to staff and community stakeholders 24/7, just as staff were available to their client families. They handled calls and other contacts related to referrals, the program, and other provider-program offerings, and were visible at community events. The PD/PI and co-PD/PI promoted TIES and encouraged sustainability, especially at the state level. The dividends of this outreach were a stable referral base and increased community support for TIES' families.

TDCS workers would attend TIES' clinical staffings to have in-depth case discussions and TIES' therapists would attend TDCS team meetings and/or Family Planning Meetings. Moreover, therapists provided written

documentation of each family's TIES' participation in reports, highlighting intervention strengths, weaknesses, and the extent to which TDCS and parental/family goals were met. Other key systems included:



#### Medical

TIES therapists assisted families in applying for TennCare, the state's Medicaid program, so they could have access to medical care. In addition to primary care services, TennCare could pay for well-child checks, which offered a substantial benefit to the well-being and social/emotional development of the children enrolled in TIES, along with behavioral health services.



#### Education

If a family had a very young child with developmental delay(s), the IHT would involve the Tennessee Early Intervention System (TEIS), a voluntary educational program designed to assist this target group.



#### Substance Use Treatment

TIES' therapists connected program participants with substance use treatment agencies in the program service area if not connected before program enrollment. Some frequently used agencies included Centerstone Community Behavioral Health Center, Bradford Health, Volunteer Behavioral Health, and Buffalo Valley as well as substance use support/recovery programs such as Alcoholics

Anonymous (AA), Narcotics Anonymous (NA), and Celebrate Recovery.

All eligible TIES' families had at least one parent with a substance use issue, though the program itself did not directly provide substance use treatment and/or recovery services. TIES' staff members would make the initial referral and/or encourage the family member to stay in treatment/support using Motivational Interviewing. The TIES program also provided and facilitated supportive services such as relapse prevention

training. In areas where there were no substance use treatment or recovery support services, TIES' therapists provided drug education based on an adaptation of the Matrix model.



## Behavioral Health

TIES' in-home therapists continued to connect program participants to mental health resources. Often persons with substance use issues have a co-occurring mental health disorder and/or trauma history. TIES' therapists worked diligently to get these individuals the supports they needed.

## Collaborative Lessons Learned

Both the RCC and the Advisory/Steering Committee were critical infrastructure that facilitated successful TIES' implementation. Regular participation was maintained in these groups over the grant cycle. We learned much from these collaborations—what works and what does not work. Among the working strategies were:

- **Seek varied opinions about who to include in your collaboration.** Ask around, including initial participants. This strategy allows the collaboration to be broad enough to effectively provide the infrastructure needed.
- **Extend personal invitations.** Direct contact always works better than second or third-hand contact. This

strategy shows your sincere interest in the individual/group's representation in your collaboration.

- **Offer opportunities for everybody to WIN.** Meetings/activities should not just be about your initiative. Respect and promote the expertise of all entities included in the collaborative. This strategy shows all participants that they are valued.
- **Provide opportunities for everybody to feel SPECIAL.** This strategy piggybacks off of #3 above. Invite the participant/agency to present at meetings and/or conferences. Promote their meetings/conferences at your collaborative activities.

Further we discovered strategies that tended to be “collaboration” killers. These strategies included:

- **Assuming that every individual/group invited would continue to be involved.** Many times entities will participate in the initial meeting out of curiosity or to promote their own interest. Whatever the reason, you need to frequently follow-up to ensure that there is an attachment and/or potential commitment to your project.
- **Viewing losses as failure** (unless your participation has dropped off substantially). Sometimes your collaboration is better off without that entity that drops off. It’s better for those entities to be weeded out sooner versus later.
- **Taking the position that “it’s your show or nothing”.** Sometimes your effort has to take a back seat to

other efforts before you can secure commitment. We found this especially true in urban areas where sitting at existing tables was preferred to coming to your table. Taking such a position may also hamper collaboration during the early stages. Your show of commitment to the efforts of potential partners tends to facilitate their commitment to your effort.

- **Trying to push individuals/groups into more “formal” collaboration.** Written commitments are more binding, but sometimes such a requirement may actually interfere with committed participants. Mention or promote gentle encouragement of written commitments (e.g., MOUs) to the extent possible, but wholeheartedly accept the participation that individuals/groups are willing to give to your program/initiative, particularly when that participation is committed.



RCC work at a regional conference.



Members of the TIES Advisory/Steering Committee discuss the TIES mission and vision statements.

The TIES' Implementation Team was further an important component. This team was comprised of MOU partners. This team formulated and/or researched ideas and strategies related to implementation for consideration by the Advisory/Steering Committee. For example, the Implementation Team presented ideas on how the program would be operationalized, reviewing referral flow charts and discussing case opening and closure requirements. Staffing issues were also addressed by this group. The team discussed program components, such as the use of Motivational Interviewing and/or the specific parent training and trauma-focused strategies that would be used with families. Further, this team helped the project prepare for annual site visits by the National Family Preservation Network (NFPN). All work of the Implementation Team was taken to the Advisory/Steering Committee for information or approval. If issues were unique to the TIES' rural communities, they were also shared with the Regional Collaborative Council (RCC).



Members of the TIES Advisory/Steering Committee discuss the TIES mission and vision statements.

## 5. Cross-site & Local Evaluation Data Collection

### Cross-site Data Collection

#### Defining the focal child

The focal child was defined as the **youngest child in the family**. Literature reviews and programmatic experience indicated that the youngest child is most likely to be removed when families have a child(ren) at risk of removal due to their age and inability to self-advocate. Exceptions were made if the referral source, TDCS, indicated another child in the home as more at-risk (n= 3 cases). In cases where the youngest children were twins (n= 5 cases), the youngest twin was identified as the focal child. Parental self-report of the order of the twins' births was used to determine which twin was the youngest.

#### Standardized instrument data used in analysis

All standardized instrument data, except for the TSCYC, were collected at baseline and program discharge per national cross-site evaluation requirements as well as four additional follow-up time points: 1) 6 months post-discharge, 2) 12 months post-discharge, 3) 18 months post-discharge, and 4) 24 months post-discharge (**Table 1**). The TSCYC was only collected at baseline. Evaluation staff administered all standardized instruments at all data collection time points, with the exception of the ASI. TIES IHTs completed the ASI with

participants as a required part of the program intake process. Due to the length and complexity of this instrument, it was not feasible to re-administer this instrument to participants who consented to be part of the evaluation during the baseline evaluation interview. Data collection occurred in evaluation participants' homes or other locations, such as a library or community center, selected by participants.

Data collection using the standardized instruments with each family was based on the focal child's age and staff used only the age appropriate instrument on the day of the data collection. The individuals selected to respond to the standardized instruments were identified using the pre-defined criteria for Family Functioning Adults (FFAs) and Recovery Domain Adults (RDAs). The FFA adult was defined as the individual who provided the most care to the focal child, specifically within the last 30 days. The FFA sometimes included individuals outside the home. This only occurred for reunification cases or for cases where the focal child was removed to kinship care or state custody prior to program completion and had been in that type of care for the last 30 days. The RDA was defined as the individual in the home whose substance use was the primary reason for the TDCS referral and put the focal

child at risk of removal to kinship care or state custody. For the majority of cases (n=191, 94%), the FFA and RDA

were the same person and would be asked to respond to both the FFA- and RDA-specific instruments.

**Table 1.** Standardized Instrument Data Collection

<b>Standardized Instrument</b>	<b>Timing</b>	<b>Respondent</b>	<b>Collector</b>
Addiction Severity Index (ASI)	Baseline, discharge, 6, 12, 18, 24 months post-discharge	RDA	Baseline: TIES IHTs Remaining time points: Evaluation staff
Adult-Adolescent Parenting Inventory (AAPI-B)	Baseline, discharge, 6, 12, 18, 24 months post-discharge	FFA	Evaluation staff
Behavior Rating Inventory for Executive Functioning (BRIEF/-P)	Baseline, discharge, 6, 12, 18, 24 months post-discharge	FFA	Evaluation staff
Child Behavior Checklist (CBCL)	Baseline, discharge, 6, 12, 18, 24 months post-discharge	FFA	Evaluation staff
Center for Epidemiologic Studies-Depression Scale (CES-D)	Baseline, discharge, 6, 12, 18, 24 months post-discharge	FFA	Evaluation staff
Infant-Toddler Sensory Profile (ITSP)	Baseline, discharge, 6, 12, 18, 24 months post-discharge	FFA	Evaluation staff
Parenting Stress Index (PSI)	Baseline, discharge, 6, 12, 18, 24 months post-discharge	FFA	Evaluation staff
Trauma Symptom Checklist-40 (TSC-40)	Baseline, discharge, 6, 12, 18, 24 months post-discharge	RDA	Evaluation staff
Trauma Symptoms Checklist for Young Children (TSCYC)	Baseline only	FFA	Evaluation staff
Vineland Socialization Subscale	Baseline, discharge, 6, 12, 18, 24 months post-discharge	FFA	Evaluation staff

## ESL data used in analysis

Enrollment and Services Log (ESL) data was collected at various time points throughout the intervention (**Table 2**). Basic demographic data for each individual involved in the intervention was collected at the baseline interview by evaluation staff. Additional data related to implementation of Seeking Safety was collected by the IHT at each Seeking Safety session conducted with the family.

The ESL data collected for these sessions included duration and location of session, individuals present, session activities, as well as how well aligned the session was with what was planned. Related to session content were documentation of specific topics

covered in the areas of adults' substance use, parenting skills and personal development; youth therapy and development; education of youth on substance use and recovery; and whether there was any educational information regarding substance use disorders and recovery provided to other case members not currently receiving any substance abuse treatment. In addition to this information, data regarding the participants' engagement level was also collected after the second Seeking Safety session as well as after the last session. Case closure date, reason for closure and status of focal child at closure was also collected by the IHT to be documented in the online ESL system by the evaluation staff.

**Table 2.** ESL Form Data Collection

ESL Form	Timing	Completed By:
1: RPG Enrollment Form	Baseline	Evaluation Staff (with participants)
2: EBP Enrollment and Exit Form	At start of Seeking Safety	TIES IHTs
3: RPG Case Closure Form	Discharge	TIES IHTs
4: Service Log Form	After each Seeking Safety session	TIES IHTs
5: Service Log Topic Grids Form	After each Seeking Safety session	TIES IHTs
6: Participant Engagement Rating Form	At the 2 <sup>nd</sup> and last Seeking Safety session	TIES IHTs

## Timing

The evaluation team collected data at **six time points: baseline, discharge, 6-months, 12-months, 18-months and 24-months**. Baseline data was collected prior to the third TIES session between the family and the IHT,

though evaluation staff attempted to meet the family for baseline data collection after the first session as often as possible. Discharge data collection occurred within two weeks of the last TIES session. Each of the subsequent follow-ups could be collected from a period of one month

prior to the research due date to two months post due date. Cases considered to be incomplete (i.e. drop out, custody, kinship care) followed the same data collection timeline structure as completed cases. Data was collected voluntarily across all time points.

The evaluation team was responsible for making contact with families to schedule an in-home interview at each of the six time points and meeting with the appropriate respondent to conduct the interview. All data was then recorded in the appropriate spreadsheet, database, or file format.

## Administrative data

### *Recovery Data*

The evaluation team maintained an aggregate list of the Recovery Domain Adults and associated identifying information in a password-protected Client Matching Excel spreadsheet. Twice per year, in the fall and spring, we submitted this list to the Tennessee Department of Mental Health and Substance Abuse Services (TDMHSAS) via Cisco Registered Envelope Service to obtain recovery and substance abuse treatment data from the state's publicly funded database on these individuals. This database captures information on treatment provided by organizations funded by block grants. The TIES PI also worked with the TDMHSAS Chief Pharmacist and State Opioid Treatment Authority (SOTA) to provide data on TIES RDAs from the Opioid Treatment Program (OTP) and Controlled Substance Monitoring (CSM) databases. TDMHSAS provided

this treatment data in a separate Recovery Data Excel spreadsheet.

### *Safety & Permanency Data*

The evaluation team maintained an aggregate list of the focal children's Tennessee Family and Child Tracking System (TFACTS) IDs (*NOTE: TFACTS is the name of Tennessee's SACWIS*) and birthdates in a password-protected Excel Spreadsheet. Twice per year, in the fall and spring, we submitted this list to a representative from the TDCS Office of Information Technology via Cisco Registered Envelope Service to obtain data on maltreatment allegations, removals, and out-of-home placements for TIES focal children. The data timeframe was September 30, 2012 – September 30, 2017 to capture all safety and permanency data 1 year prior to RPG activities through the end of the grant. TDCS provided safety and permanency data in a separate matching Excel spreadsheet.

## Data Collection for the Local Evaluation

Additional data collection elements for the local evaluation are outlined in **Table 3**. Specific components of the

local evaluation are also described in more detail below.

**Table 3.** TIES Local Evaluation Instruments and Tools

Instrument/Tool	Timeline	Completed By
<i>Collaboration</i>		
Frey's Collaboration Scale	Annually at fall Advisory/Steering Committee meetings (2013-2017)	TIES Advisory/Steering Committee members
<i>Family Functioning</i>		
North Carolina Family Assessment Scale (NCFAS)	Baseline, interim, discharge 6, 12, 18, 24 months post-discharge	TIES IHTs Evaluation Staff
<i>Program Implementation/Fidelity Monitoring</i>		
IFPS Service Log	At every IFPS session	TIES IHTs
Seeking Safety Module Checklist	At every Seeking Safety session	TIES IHTs
IFPS Continuous Quality Improvement (CQI) Instrument	Biannually following OAISIS upload completion (Fall 2014 – Fall 2017)	Evaluation Staff; Principal Investigator; Program Director
Family Satisfaction Survey	At program discharge	FFA, RDA
Referent Satisfaction Survey	At program discharge	TDCS case workers (who referred cases to TIES)
<i>Client Experiences</i>		
Qualitative semi-structured interviews	August 2014 - April 2015	Vanderbilt Master's intern Evaluation staff
<i>Cost Study</i>		
Activity Code Tracker	June 1, 2015 – May 31, 2016	TIES IHTs; Evaluation Staff

### Collaboration

The evaluation team administered the Frey's Levels of Collaboration Scale annually from 2013-2017 to TIES Advisory/Steering Committee members to measure changes in their perception of the nature and degree of their collaborative work around TIES. Typically, administration occurred at the fall committee meeting. Members

were provided with definitions of the different collaborative levels and asked to select a level for each organization represented on the TIES Advisory/Steering committee. They were also invited to name additional organizations with whom they engaged in work around TIES and identify the level to which they collaborate with these organizations as well.

## Family Functioning: NCFAS

The North Carolina Family Assessment Scale for General Services and Reunification (NCFAS-G+R) was used to collect family functioning outcome data from families. IHTs completed the NCFAS at three time points during the intervention: Intake, Interim and Closure. At subsequent follow-ups, the evaluation team completed the data collection after interviewing the family. This data was entered into a NCFAS database for cleaning and analysis.

## Program Implementation: IFPS Service Logs

Pending any unforeseen crises, each session of the TIES intervention was IFPS centered. **The IHT completed an IFPS Service Log, developed by the evaluation team, to track various aspects of each individual IFPS session.** The IFPS Service Logs captured the location and length of the session, those present during delivery of IFPS services, any assessments completed, and if safety was addressed or a safety check was made. In addition, session content was captured to include various skills addressed as well as the teaching strategies, parenting programs, and other EBPs used during the session. The logs also documented any concrete goods and services accessed with IHT help and session alignment. These logs were later analyzed to determine service dosage and intensity.

## Fidelity Monitoring

### *IFPS*

IFPS fidelity monitoring, led by the TIES Lead Evaluator, occurred twice per year in the spring and fall from Spring 2015 through Spring 2017. Monitoring activities consisted of in-depth chart reviews guided by the IFPS Continuous Quality Improvement instrument. This instrument was developed in collaboration with IFPS model developers, the National Family Preservation Network (NFPN), in the fall of 2014. Client charts were randomly selected for the review process. First, cases were sorted according to their assigned individual IHT and placed in chronological order from the date of program enrollment (as reported in the TIES Referral Grid). Cases are only identified by their IFPS Client ID to preserve client anonymity. Next, each therapist's cases were further stratified by date of enrollment. Two-month time ranges were selected to mark therapists' progression over time. After being stratified by therapist and date of enrollment, each case was assigned a number beginning with 1 in chronological order from the date of program enrollment. For example, if client 123456 began services on January 10 and client 456789 began services on January 13, then client 123456 would be assigned the number 1 and client 456789 would be assigned the number 2 for the purposes of selection. The Excel random number generator function was used to select two cases per time range per IHT for review. Chart reviewers always included the Lead Evaluator,

Principal Investigator, and Program Director. After chart reviews were completed, the results were tallied and shared with the TIES program staff and Advisory/Steering Committee.

### *Seeking Safety*

To monitor fidelity to Seeking Safety, therapists completed the Seeking Safety Module Checklist (developed by the evaluation team and introduced as part of the therapists' charting requirements in January 2015). Therapists checked off the Seeking Safety modules completed during the case, filled in the date of completion, and then provided a copy of the checklist to the research team at case closure. This method allowed program administrators and research staff to confirm therapists consistently completed 11 modules, including the 5 required modules, within the 2-week Seeking Safety portion of the TIES program. The evaluation team tallied the results quarterly and shared them during Evaluation Booster sessions with the TIES program staff.

### *Qualitative Study*

A short qualitative sub-study was conducted between August 2014 - April 2015 to explore the lived experiences of rural mothers at immediate risk of losing custody of their children due to substance abuse and the experiences of providers who assist them. A small sample of rural mothers enrolled in the TIES program (n=4) and a sample of TIES program staff (n=6) were generated using convenience sampling. Both groups were interviewed by a Master's student

from Vanderbilt University to gather information about challenges rural mothers with substance abuse issues face; assist in identifying unmet needs; and provide insight into the ways TIES affects rural mothers' ability to parent and maintain custody of their children. Interviews were semi-structured, took place in participants' homes or at the TIES clinic facility, and lasted between 60-90 minutes. Rural mothers who participated were provided with a \$10 gift card in appreciation for their time.

### *Cost Study*

TIES conducted a cost study for one-year period for all IHTs as well as the evaluation team. We tracked all activities using calendars and Centerstone's time keeping system. This information was then accessed and entered by the evaluation team into an Excel spreadsheet. Activities were tracked by code for each therapist and evaluation team member. Coded activities were then tracked for each active case. Last, codes were calculated to determine how much time was spent in case-specific activities. Using the **cost per unit of activity method**, we summed each of the program component costs – direct service personnel time, non-direct service personnel time, admin personnel time, and non-personnel costs – for each case.

# 6. Descriptive Local Evaluation Analyses & Results

## Analyses Conducted

The change over time outcomes reported in this section were primarily obtained through non-parametric statistical analyses (see **Table 4** below for data types and analyses used). The final datasets for many of the standardized assessments used to measure outcomes were not normally distributed and often contained smaller follow-up sample sizes, particularly for the 12-month longitudinal analyses. While non-parametric techniques are more conservative, the evaluation team decided that the complexity of the TIES

program and potential confounders merited an emphasis on reducing the chance of obtaining falsely positive results (Type 1 error). When running analyses on instruments with multiple sub-scales, the evaluation team calculated Bonferroni adjustments to set more stringent alpha levels across the domains. For the aggregate comparison data we received on children in the TDCS system who did not receive the TIES intervention, we calculated the odds ratio of removal based on treatment status (TIES or non-TIES).

**Table 4.** Data types and analyses used

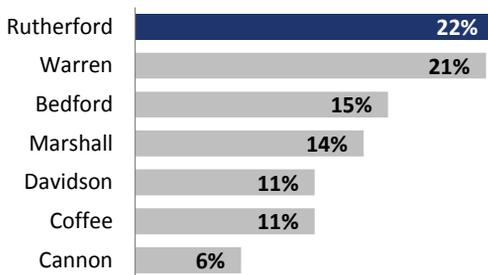
Data	Statistical Test
Baseline to discharge assessment scores	Wilcoxon Signed Rank test
Baseline to 12-month assessment scores	Friedman test
Baseline to discharge proportions <ul style="list-style-type: none"> <li>• Proportion of caregivers categorized as high drug users</li> <li>• Proportion of caregivers categorized as high alcohol users</li> </ul>	McNemar’s test
Comparisons across time between groups <ul style="list-style-type: none"> <li>• Family functioning score changes between rural and urban participants</li> <li>• Family functioning score changes between parents of infants with NAS vs. those without</li> </ul>	Mixed between-within ANOVA
Matched comparison	Odds ratio

## Process Findings

### Who was enrolled in the TIES program?

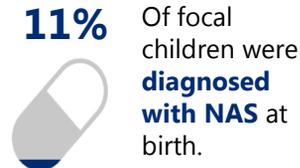
All TIES enrollees were referred by TDCS. The majority of participating families were from Rutherford and Warren counties.

**The majority of TIES families were located in Rutherford county.**



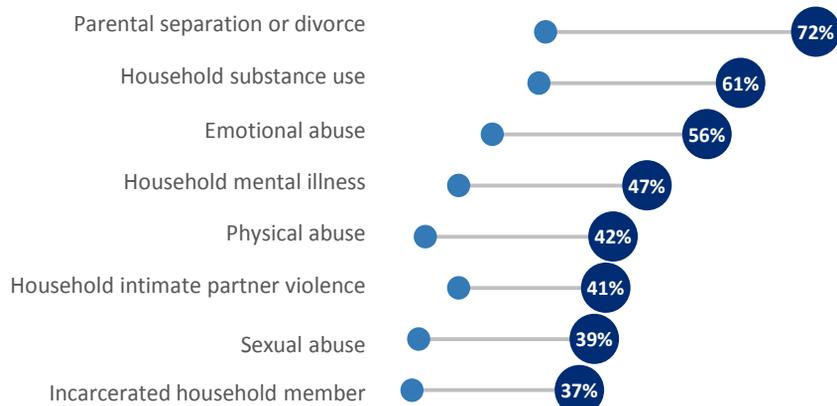
The majority of **focal children** were white and under 5 years old (n=203). TIES focal children were nearly evenly split among females (48%) and males (52%). Twenty-three (11%) focal

children had been diagnosed with Neonatal Abstinence Syndrome at birth.



The majority of **primary caregivers** served by TIES were white, female, and between 20-29 years old (n=203). Most had a high school diploma, but reported earning \$0-9,999 in the last year. The majority of caregivers were not in a relationship at the start of services and most reported either being single (unmarried and not cohabitating) or divorced/separated/widowed. Caregivers also reported higher than average Adverse Childhood Experiences (ACEs).

**TIES caregivers** reported higher ACEs than the **Tennessee average**. (n=178)

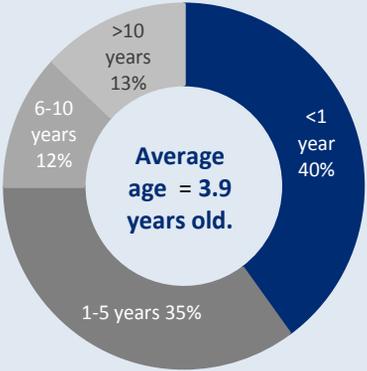


Source: Tennessee BRFSS, 2012 ([https://www.tn.gov/assets/entities/health/attachments/TN\\_BRFSS\\_2012\\_Optional\\_Modules.pdf](https://www.tn.gov/assets/entities/health/attachments/TN_BRFSS_2012_Optional_Modules.pdf))

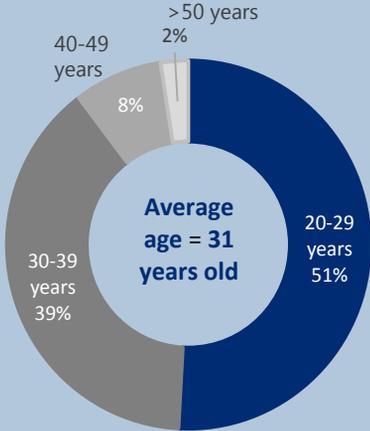
# TIES Participant Demographics

## Focal Children (n=305)

## Primary Caregivers (n=305)



**AGE**

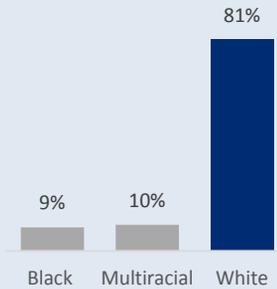


**52% Male**  
**48% Female**

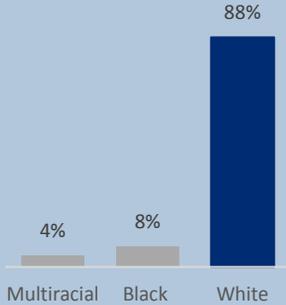
**GENDER**



**9% Male**  
**91% Female**

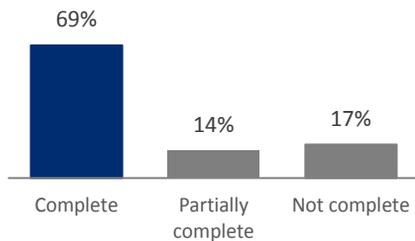


**RACE**



## How many families completed the program?

The majority of families enrolled in TIES **completed** the program.



Successful completion for TIES was defined as completing both the IFPS and Seeking Safety components of the

program. Since the components were offered sequentially, partial completion was also tracked. Partial completion was defined as completing the IFPS portion of the program, but not Seeking Safety. Participants who completed neither IFPS nor Seeking Safety were classified as Not Complete. Of the 305 families who enrolled in TIES, **69% (n=209) met the criteria for program completion**, 14% (n=43) met the criteria for partial completion, and 17% (n=53) did not complete.

## What service dosage did families receive?

The majority of families' time in was spent in IFPS services.



On average, families spent **5.7 weeks** in the program. This average varied based on completion status. Families who successfully completed the program spent an average of 6.5 weeks in the program (minimum of 3 weeks to a maximum of 10.5 weeks). Families who partially completed the program spent an average of 5.8 weeks in the program (minimum of 3.3 to a maximum of 8.5 weeks). Families who did not complete the program spent an average of 2.3 weeks in the program (minimum of 0.3 to a maximum of 5 weeks).

Participants' time in TIES was spent in both IFPS and Seeking Safety sessions.

On average, both IFPS and Seeking Safety sessions lasted 2 hours. Families spent an **average of 19 sessions** and **41 hours** in the TIES program. Families spent about **80% of this time in IFPS and 20% of this time in Seeking Safety**. On average, the IFPS portion of TIES consisted of 16 sessions and 34 hours while the Seeking Safety portion lasted an average of 4 sessions and 9 hours. Service dosage did not differ significantly by where families were located, focal child age, or focal child drug exposure (NAS/non-NAS). (NOTE: Detailed data on service sessions and hours was only collected on families enrolled in the evaluation.)

# Implementation Findings

## Did In-home Therapists adhere to model fidelity standards?

### IFPS

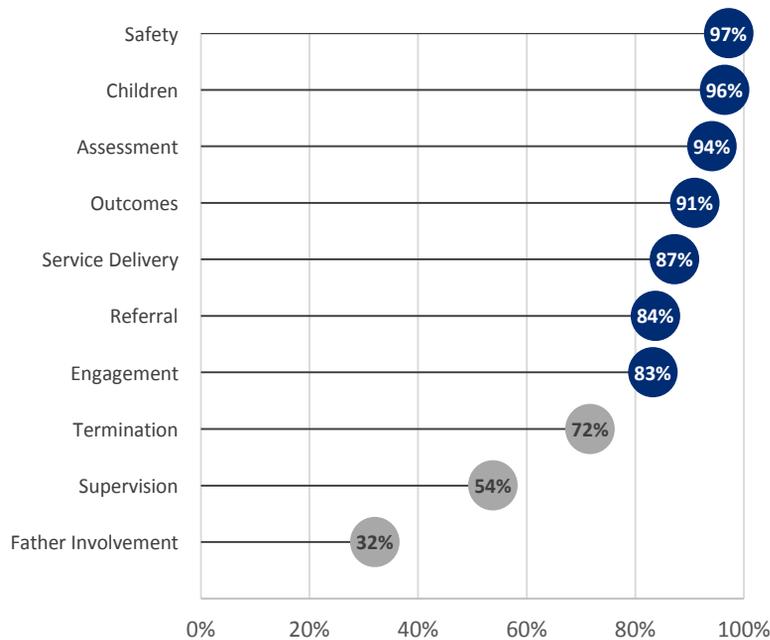
On average, TIES therapists maintained **greater than 80% compliance** in all IFPS fidelity domains except Termination Supervision, and Father Involvement. Fidelity to the IFPS model was measured using the IFPS Continuous Quality Improvement tool developed in collaboration with the IFPS model developers. During development of the CQI tool, NFPN required that "father involvement" be defined as biological father involvement. While IHTs did attempt to involve biological fathers, the biological fathers in many TIES cases were not involved either because the

primary caregiver did not support their involvement or due to safety issues with the biological father's involvement, such as pending domestic violence charges. Termination scores were low due to difficulties completing the termination survey at discharge with families.

### Seeking Safety

Of cases that IHTs marked "complete" in Seeking Safety (n=149), **more than 80% met program fidelity standards**. Eighty-five percent (85%) received at least 11 modules and 86% received all 5 required modules.

On average, TIES therapists maintained **greater than 80% compliance** in all IFPS fidelity domains except Termination Supervision, and Father Involvement.



## Were program participants and referents satisfied with TIES services?

Yes, both program participants, including parents and family members who received TIES services, and TIES program referents (primarily TDCS case workers) reported high satisfaction with the TIES program. 89% of participants reported that they were “Very Satisfied” with the TIES program and **92% felt that TIES helped their**

**family a great deal.** Of program referents, 91% reported that they were “Very Satisfied” with the TIES program and **86% responded that they would “Definitely” recommend the TIES program to colleagues.** See **Appendix I** for comments and feedback from TIES participants and TDCS referents.

*“I have received contact from each and every family that has worked with this program on my referral—that they were **thankful and beyond appreciative** of the services provided.*

– TDCS Investigator

*This program really tries to help you get your life back. I was in a horrible situation and it **gave me the knowledge and courage to be able to do it on my own;** meaning to take care of my sons on my own and to have confidence in myself.*

– TIES Participant

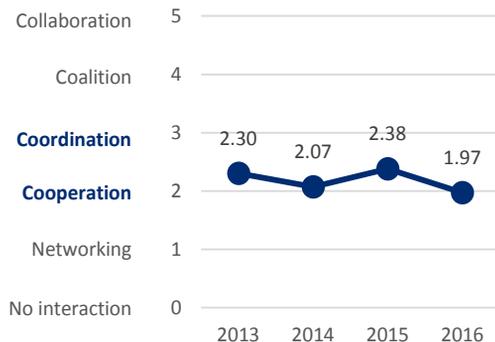
*Never once did I ever doubt through the whole process that **my therapist was on my side.** I could see, when I hurt she hurt for me. When I was proud, she was proud of and for me.*

– TIES Participant

## Did collaboration between program partners improve?

Nineteen partners responded to the Frey’s Collaboration Scale between 2013-2016. There was a slight increase in perceived collaboration in 2015, mean levels of perceived collaboration across respondents ultimately remained between the Cooperation and Coordination levels. Turnover among representatives from different organizations could be one explanation for these results.

Mean level of perceived collaboration across all respondents for all partners remained between the **Cooperation** and **Coordination** levels (n=19).



## What was the cost to implement the TIES program?

Using the cost per unit of activity method, we summed each of the program component costs – direct service personnel time, non-direct service personnel time, admin personnel time, and non-personnel costs – for each case. The **average cost per case** (across cases that were enrolled and discharged during the cost study period) was **\$9,145.55**. The average number of children across TIES families was 2.14 children per

family. To obtain the average cost per child we divided the average total cost per case (\$9,145.55) by 2.14 (the average number of children). The **average cost per child** came to **\$4,273.62**.



## Outcome Findings: Change Over Time

### Similarity to program

The evaluation sample consisted of 67% (n=203) of the total TIES program population. The characteristics of both the evaluation sample and program population were similar (**Table 5**). See

**Appendix II, Table A2.1** for summary of program enrollment and data collection. However, families who participated in the evaluation had slightly higher completion rates and more infants diagnosed with NAS.

Table 5. Program and Evaluation Characteristics

	Program (n=305)	Evaluation (n=203)
<b>Families</b>		
<b>County</b>		
Rutherford	23%	22%
Warren	22%	21%
Bedford	14%	15%
Davidson	12%	14%
Marshall	11%	11%
Coffee	11%	11%
Cannon	6%	6%
<b>Program Completion</b>		
Complete	69%	73%
(IFPS + Seeking Safety)		
Partially complete	14%	14%
(IFPS only)		
Not complete	17%	13%

	Program (n=305)	Evaluation (n=203)
<b>Caregivers</b>		
<b>ACEs</b>		
4 or more ACEs	58%	60%
<b>Focal Children</b>		
<b>Drug exposure</b>		
NAS	8%	19%
No NAS	92%	81%
<b>Sex</b>		
Female	48%	48%
Male	52%	52%
<b>Age</b>		
<1	39%	40%
1-5 years	36%	35%
6-10 years	14%	12%
>10 years	13%	13%

## Observed patterns

The tables below present change over time outcomes for key variables from baseline to discharge (**Table 6**) and from baseline to 12-months post

services (**Table 7**). See **Appendix II, Tables A2.2 and A2.3** for baseline equivalence between each of these groups.

**Table 6.** Change over time in families' outcomes: Program Entry to Program Exit

Outcome	Sample Size	Program Entry Mean (SD)	Program Exit Mean (SD)	Mean Difference	P-value of Difference
<b>Family Functioning</b>					
Environment Issues ( <i>as measured by the NCFAS</i> )	184	3.16 (1.47)	2.83 (1.38)	-0.33	<0.001***
Family Safety Issues ( <i>as measured by the NCFAS</i> )	182	3.31 (1.44)	2.92 (1.34)	-0.39	<0.001***
Family Interaction Issues ( <i>as measured by the NCFAS</i> )	184	3.45 (1.39)	3.07 (1.35)	-0.38	<0.001***
Social/Community Life Issues ( <i>as measured by the NCFAS</i> )	180	3.50 (1.10)	3.17 (1.12)	-0.33	<0.001***
Self-sufficiency Issues ( <i>as measured by the NCFAS</i> )	182	3.77 (1.37)	3.47 (1.41)	-0.30	<0.001***
Family Health Issues ( <i>as measured by the NCFAS</i> )	181	3.88 (1.19)	3.45 (1.08)	-0.43	<0.001***
<b>Caregiver Mental Health</b>					
Depression Symptomology ( <i>as measured by the CES-D</i> )	158	10.75 (8.07)	8.37 (7.93)	-2.38	<0.001***
Trauma Symptomology ( <i>as measured by the TSC-40</i> )	147	28.02 (19.1)	22.99 (18.26)	-5.03	<0.001***
<b>Caregiver Substance Use</b>					
Alcohol Use ( <i>as measured by the ASI</i> )	146	0.05 (0.12)	0.02 (0.06)	-0.03	<0.001***
Drug Use ( <i>as measured by the ASI</i> )	145	0.16 (0.14)	0.04 (0.09)	-0.12	<0.001***
<b>Caregiver Parenting Capabilities</b>					
Parenting Stress ( <i>as measured by the PSI-SF</i> )	123	80.20 (14.19)	76.43 (15.37)	-3.77	0.001***
Parental Capability Issues ( <i>as measured by the NCFAS</i> )	183	3.81 (1.16)	3.01 (1.19)	-0.80	<0.001***
<b>Child Well-being</b>					
Child Well-being Issues ( <i>as measured by the NCFAS</i> )	182	2.93 (1.41)	2.66 (1.19)	-0.27	<0.001***

\*\*Significantly different from zero at the .05 level, two-tailed test.

\*\*\*Significantly different from zero at the .01 level, two-tailed test.

**Table 7.** Change over time in families' outcomes: Program Entry to 12 months post-Exit

Outcome	Sample Size	Program Entry Mean (SD)	Program Exit Mean (SD)	Mean Difference	P-value of Difference
<b>Family Functioning</b>					
Environment Issues ( <i>as measured by the NCFAS</i> )	45	3.18 (1.67)	3.44 (1.41)	0.26	1.000
Family Safety Issues ( <i>as measured by the NCFAS</i> )	43	3.53 (1.45)	2.93 (1.30)	-0.60	0.073*
Family Interaction Issues ( <i>as measured by the NCFAS</i> )	44	3.30 (1.42)	3.11 (1.21)	-0.19	1.000
Social/Community Life Issues ( <i>as measured by the NCFAS</i> )	43	3.44 (1.14)	3.47 (0.88)	0.03	1.000
Self-sufficiency Issues ( <i>as measured by the NCFAS</i> )	45	3.89 (1.35)	3.47 (1.27)	-0.42	0.331
Family Health Issues ( <i>as measured by the NCFAS</i> )	45	3.87 (1.25)	3.91 (1.08)	0.04	1.000
<b>Caregiver Mental Health</b>					
Depression Symptomology ( <i>as measured by the CES-D</i> )	51	10.58 (8.21)	10.80 (8.51)	0.22	0.354
Trauma Symptomology ( <i>as measured by the TSC-40</i> )	50	29.08 (21.02)	25.96 (17.64)	-3.12	0.244
<b>Caregiver Substance Use</b>					
Alcohol Use ( <i>as measured by the ASI</i> )	54	0.05 (0.11)	0.02 (0.04)	-0.03	0.031**
Drug Use ( <i>as measured by the ASI</i> )	52	0.16 (0.13)	0.03 (0.06)	-0.13	0.000***
<b>Caregiver Parenting Capabilities</b>					
Parenting Stress ( <i>as measured by the PSI-SF</i> )	37	82.54 (13.19)	79.16 (15.05)	-3.38	0.361
Parental Capability Issues ( <i>as measured by the NCFAS</i> )	44	4.02 (1.04)	3.27 (1.17)	-0.75	0.004***
<b>Child Well-being</b>					
Child Well-being Issues ( <i>as measured by the NCFAS</i> )	44	3.02 (1.56)	2.91 (1.22)	-0.11	1.000

\* Significantly different from zero at the .10 level, two-tailed test.

\*\*Significantly different from zero at the .05 level, two-tailed test.

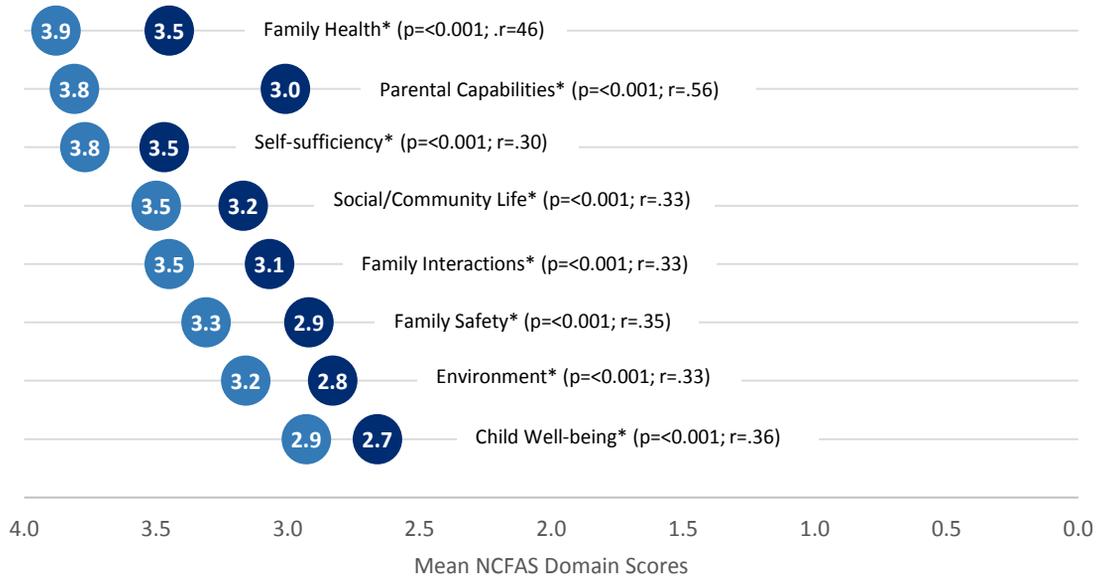
\*\*\*Significantly different from zero at the .01 level, two-tailed test.

## Did participant family functioning improve?

### Mean scores improved in all 10 NCFAS family functioning domains from baseline to discharge.

Improvements were statistically significant\* in 8 domains.

NOTE: Score decreases indicate improvement.



### Environmental Issues

30% of families showed improvements in environmental issues from baseline to discharge and mean score decreases in this domain were statistically significant (n=180, p=0.000, r=.38). However, improvements were not maintained. At one year post-services, families' mean environmental issues score was higher than baseline (n=39,  $\chi^2=3.42$ ).

### Family Interaction Issues

40% of families showed improvements in family interaction issues from baseline to discharge and mean score decreases in this domain were statistically significant with moderate

effect sizes (n=167, p=0.000, r=.43).

Improvement in the mean family interactions score was maintained through 12 months, but was not statistically significant from baseline (n=38,  $\chi^2=9.83$ ).

### Family Safety Issues

35% of families showed improvements in family safety issues from baseline to discharge and mean score decreases in this domain were statistically significant with moderate effect sizes (n=172, p=0.000, r=.41). Improvement in the mean family safety score was maintained through 12 months and remained statistically significant from baseline (n=39, p=0.008,  $\chi^2=15.19$ ).

### Child Well-being Issues

32% of families showed improvements in child well-being issues from baseline to discharge and mean score decreases in this domain were statistically significant (n=161, p=0.000, r=.47). Improvement in the mean child well-being score was maintained through 12 months, but was not statistically significant from baseline (n=31,  $\chi^2=8.95$ ).

### Self-sufficiency Issues

28% of families showed improvements in self-sufficiency issues from baseline to discharge and mean score decreases in this domain were statistically significant (n=169, p=0.000, r=.34). Improvement in the mean self-sufficiency score was maintained through 12 months, but was not statistically significant from baseline (n=41,  $\chi^2=5.48$ ).

### Social/Community Life Issues

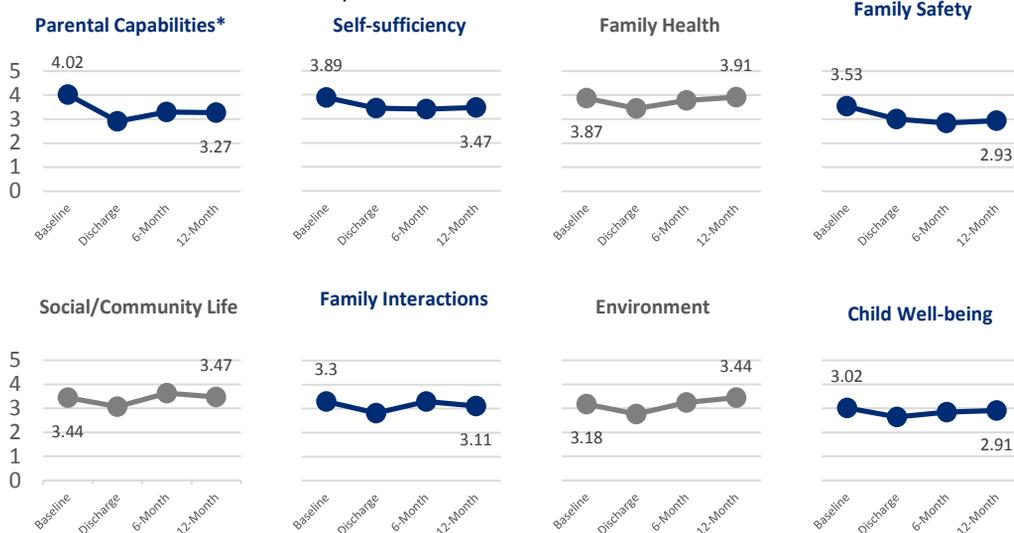
28% of families showed improvements in social/community life issues from baseline to discharge and mean score decreases in this domain were statistically significant (n=157, p=0.000, r=.38). However, improvements were not maintained. At one year post-services, families' mean social/community life score approached baseline levels (n=35,  $\chi^2=9.99$ ).

### Family Health Issues

41% of families showed improvements in social/community life issues from baseline to discharge and mean score decreases in this domain were statistically significant with a moderate effect size (n=166, p=0.000, r=.57). Improvement in the mean family health score was maintained through 12 months, but was not statistically significant from baseline (n=39,  $\chi^2=9.85$ ).

**Mean NCFAS score improvements were maintained through 12 months post-services in 5 domains.** Improvements remained statistically significant\* from baseline in the Parental Capabilities domain.

*NOTE: Score decreases indicate improvement.*



### Rural vs. Urban County Location

There were no significant differences between urban and rural families' score changes (i.e. rural families did not see more improvement than urban families and vice versa). Urban and rural families' scores were not significantly different from one another at baseline or discharge.

### Drug Exposure vs. No Drug Exposure

Among families with infants (aged <1 year old) (n=81), there were no

significant differences in domain scores changes between families with infants who had no confirmed drug exposure, families with infants who had drug exposure indicated, and families with NAS infants. Scores for families with infants who had no confirmed drug exposure, families with infants who had drug exposure indicated, and families with NAS infants were not significantly different from one another at baseline or discharge.

## Did caregiver mental health improve?

**67%** of FFAs reported **decreased trauma** symptomology at discharge. (n=147)

### Trauma symptomology

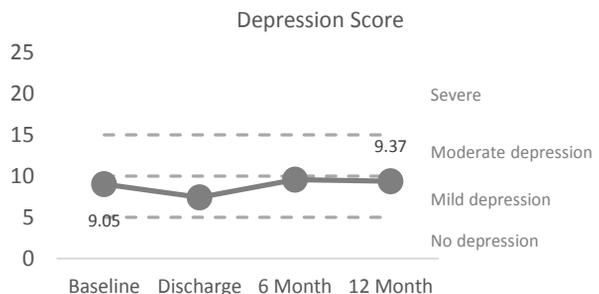
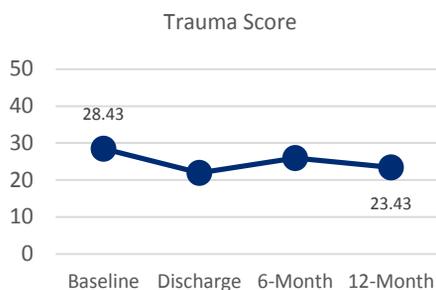
Sixty-seven percent (67%) of Recovery Domain Adults reported decreases in trauma symptomology from baseline to discharge and mean TSC-40 Total Score decreases were statistically significant (n=147, p=0.000, r=.36). Improvements in mean RDA TSC-40 scores were maintained through 12 months, but were not statistically significant from baseline (n=40, p=0.093,  $\chi^2=5.36$ ).

**58%** of FFAs reported **decreased depression** symptomology at discharge. (n=158)

### Depression symptomology

Fifty-eight percent (58%) of Family Functioning Adults reported decreases in depression symptomology from baseline to discharge and mean CES-D score decreases were statistically significant (n= 158, p=0.000, r=.30). However, improvements were not maintained. At one year post-services, FFAs' mean depression symptomology score was higher than baseline (n=40, p=0.556,  $\chi^2= 2.08$ )

## Mean score improvements were maintained through 12 months for trauma symptomology, but not depression symptomology.



## Did caregiver substance use decrease?

**85%** of RDAs reported **decreased drug use** at discharge.  
(n=145)

### Drug use

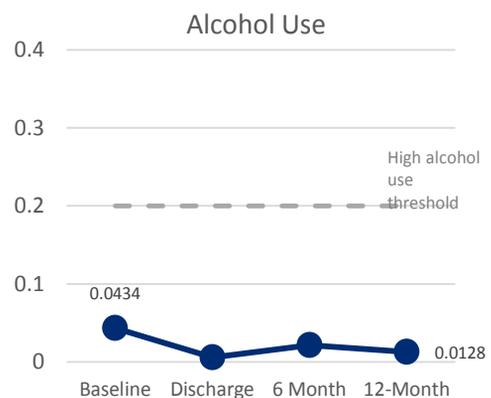
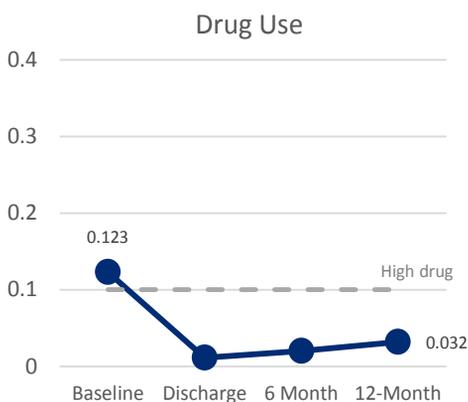
Of Recovery Domain Adults reporting drug use, 85% reported decreases in drug use from baseline to discharge (n=97). Mean Drug Use score decreases were statistically significant (n=145, p=0.000, r=.67). Improvements in mean Drug Use scores were maintained through 12 months and remained statistically significant from baseline (n=42, p=0.000,  $\chi^2=48.49$ ). The proportion of RDA's who met the clinical threshold for high drug use also decreased significantly from baseline to discharge (n=145, p=0.000).

**86%** of RDAs reported **decreased alcohol use** at discharge.  
(n=146)

### Alcohol use

Of Recovery Domain Adults reporting alcohol use, 86% reported decreases in alcohol use from baseline to discharge (n=24). Mean Alcohol Use score decreases were statistically significant (n=146, p=0.000, r=.29). Improvements in mean Alcohol Use scores were maintained through 12 months, but were not statistically significant from baseline (n=43, p=0.547,  $\chi^2=10.17$ ). The proportion of RDA's who met the clinical threshold for high alcohol use also decreased significantly from baseline to discharge (n=141, p=0.000).

## Mean score improvements were maintained through 12 months for both drug use and alcohol use.



## Did caregiver parenting improve?



### Parental capabilities

57% of families showed improvements in parental capabilities (as measured by the NCFAS G+R) from baseline to discharge and mean score decreases in this domain were statistically significant with moderate effect sizes (n=159, p=0.000, r=.62). Improvement in the mean parental capabilities score was maintained through 12 months and remained statistically significant from baseline (n=38, p=0.001,  $\chi^2=25.31$ ).



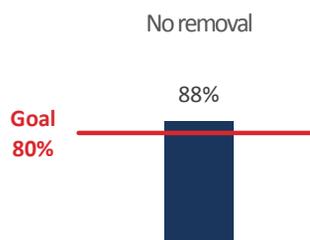
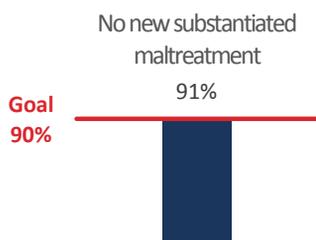
### Parenting stress

56% of Family Functioning Adults reported decreases in parenting stress from baseline to discharge and mean PSI-SF Total Stress Score decreases were statistically significant (n=123, p=0.001, r=.31) Improvements in mean FFA Total Stress Scores were maintained through 12 months, but were not statistically significant from baseline (n=24, p=0.198,  $\chi^2=4.571$ ). In addition, the proportion of caregivers with clinically significant levels of parenting stress decreased from baseline to discharge, but this decrease was not statistically significant (p=0.167)

## Did TIES prevent child out-of-home placement and abuse?

TIES exceeded its child safety and permanency goals. Of the TIES focal children who were at least 6 months post-services at the time of this report (n=182), **91% had no additional substantiated abuse allegations** and **88% remained in their homes** (had not been removed into state custody). Of the TIES focal children who were at

least 12 months post-services (n=141), **90% had no additional substantiated abuse allegations** and **89% remained in their homes**. The majority of removals occurred less than 3 months post-services, while the majority of new substantiated maltreatment allegations occurred 6-11 months post-services



## Limitations

There were several limitations present in this evaluation that could affect the validity and reliability of the results presented here. These included:

### *Interrater reliability*

Different individuals collected the ASI and NCFAS at different time points. IHTs would complete the ASI at intake and the NCFAS at intake, interim, and closure while the evaluation staff would complete these assessments at all remaining follow-up time points. Participants may have responded differently to the different individuals collecting this data over time.

### *Caregiver self-report on substance use*

Drug and alcohol use were collected on the ASI using participant self-report. Resources were unavailable to confirm, through drug testing whether this was true and participants' responses may have underestimated actual usage.

### *Therapist self-report on fidelity*

Direct observation and/or recording of TIES sessions was not a clinically advisable option since key pieces of the intervention addressed sensitive topics like trauma and substance use. Instead, therapists were asked to self-report key variables used in the fidelity review within the client chart and the IFPS Service Log. It is possible that adherence to certain domains was under/over-reported.

### *Different respondents on child well-*

### *being instruments*

The child well-being assessments required respondents to have had custody of the focal child for the last 30 days. However, as a result of caregiver referrals to inpatient treatment or caregiver incarceration during and after the intervention, several cases (n=6) had different individuals responding to these assessments at intake and discharge. The change in respondent, and consequently in the perception of the child, may misrepresent the actual changes in child well-being domains as a result of TIES.

# 7. Local Evaluation – Impact Evaluation

The TIES evaluation plan originally included a quasi-experimental individual matched comparison group protocol, but this component was unable to be completed due to significant data constraints. When the evaluation team, in collaboration with the Tennessee Department of

Children’s Services (TDCS), initially developed a plan for a match group we identified three pieces of information needed to maximize the similarities between the groups and better identify effects specific to the TIES program. These pieces of information included:

1. Demographic data	Specifically child age, county of residence, child gender, and child race.
2. Level of risk	We planned to use data from TDCS’ Safety Decision Making (SDM) tool to identify the TDCS risk rating at service referral, type of abuse cited, and the date of the referral.
3. Safety & permanency data	To determine outcomes from the TIES and non-TIES interventions.

While obtaining demographic and safety/permanency data presented no issues, there were numerous challenges extrapolating level of risk data for both the TIES and non-TIES populations. These challenges are outlined below.

- **Instrument Switch.** As of September 20, 2015, TDCS officially discontinued the state-wide use of the SDM as a safety assessment tool and began using the FAST 2.0. The FAST 2.0 uses different variables to assess risk.
- **Multi-level matching.** Matching had to occur on multiple levels since SDM and FAST 2.0 data is tracked via a family “investigation ID” and is not necessarily specific to a single child while the demographic and outcomes data is tracked via an individual child’s TFACTS ID.

- **Missing Data.** Not all counties in Tennessee collect SDM and FAST 2.0 data consistently. Successive data pulls from the SDM database only returned matching data on 2 TIES participants that corresponded to the time of their TIES referral and data pulls from the FAST 2.0 database only returned matching data on 14 TIES participants that corresponded to the time of their TIES referral. This meant that SDM and FAST data provided level of risk data for only 15% of our TIES evaluation population and were not sufficient for propensity score matching.

Instead, the TIES evaluation team received a dataset containing demographic, abuse allegation, and placement/ removal data on children who did not receive the TIES program from TDCS on October 5, 2017.

TDCS filtered their state-wide data according to specific bounds (see box right) to align with the TIES program eligibility criteria and service timeframe.

A case-control match was conducted using the Fuzzy extension in SPSS 22 to match children who received TIES services with a child who did not receive TIES services. TIES children and non-TIES children were matched along the following eight variables and criteria for match variability:

**DATA FILTERS**

- Where **parental substance** use is confirmed (a key eligibility criteria for the TIES program)
- Located in the 7 **TIES service counties** (Bedford, Cannon, Coffee, Davidson, Marshall, Rutherford, and Warren)
- Opened between **January 2013 through October 2017**, aligning with TIES evaluation enrollment

Variable	Fuzz/Bounds
1. Year the TDCS case opened	“Fuzz” set within 2 years
2. Child birth year	“Fuzz” set within 2 years
3. Child age at case open	“Fuzz” set within 2 years
4. Child gender	Exact match
5. Child race	Exact match
6. Current track of the TDCS case	investigation vs. assessment (exact match)
7. TDCS case classification type	Exact match
8. Child county of residence	Exact match

The final matched dataset included 164 matched pairs of TIES and non-TIES children. Children in both groups were similar, though the children in the TIES group were younger than the children in the non-TIES group (**Appendix II, Table A2.4**). The mean age for TIES children was 4.74 and the mean age for non-TIES children was 5.91. Once a matched dataset was obtained that maximized the similarities between the two groups, the odds ratio of being removed based on intervention status was calculated. Based on this data, **the odds of removal were 36% less for children if they participated in TIES** (OR=.636; CI .34 – 1.19; p=0.16).

Because we had no information about the intensity and type of services non-TIES children received, we re-ran the odds ratio calculation using only matched pairs in the Investigation track to account for possible variation (n=101). TDCS places cases in the Investigation track when higher issue severity and service intensity are indicated. The results from this analysis showed that **the odds of removal were 58% less for children in the TDCS Investigation track if they participated in TIES** (OR=.422; CI .20 – .91; p=0.028).

## 8. Sustainability

Once national evaluation activities were finalized, the TIES' project started sustainability activities. We began with sustainability training in May 2014. Consultants Sid Gardner, Ken DeCerchio, and Nancy Hansen from the National Center on Substance Abuse and Child Welfare (NCSACW) provided the training for the Advisory/Steering Committee. Sustainability efforts were measured using Washington University's Program Sustainability Assessment Tool (PSAT). This tool measures eight domains: 1) Environmental Support; 2) Funding Stability; 3) Partnerships; 4) Organizational Capacity; 5) Program Evaluation; 6) Program Adaptation; 7) Communications; and 8) Strategic Planning. The scale ranges from a low of 1 to a high of 7. The

Advisory/Steering Committee re-assessed its efforts with the PSAT in 2015 and 2016 (results are provided below). All 2016 scores reflected increases over 2014 and 2015 assessments results. Funding Stability remained the lowest domain score, but it too increased slightly in 2016. Overall, these results indicate that TIES made progress in the area of sustainability. The PD/PI and/or Co-PD/PI were frequently contacted by or initiated contact with other (TN) state-level child-serving agencies regarding sustainability of the TIES program. Conversations involved TDCS, TDHS, TennCare, and TDH. Regional administrators (RAs) for TDCS in the counties served by TIES continued to profess their desire for TIES' program expansion.

TIES PSAT Scores by domain 2014-2016 (decreases indicate improvement)



Centerstone, with the help of TDMHSAS, submitted a proposal for funding to TDHS. The proposal was based upon the 2 Generation (2Gen) approach to addressing family needs which Tennessee had begun utilizing. The TIES' model, and most especially the IFPS component, delivers a two-generational approach. A 2Gen approach is essentially a whole-family approach built on the premise that conditions affecting the family will have an impact on child development as well the direct experiences of the child. Such approaches look at problems and strengths and create more sustainable solutions, solutions that recognize that what is good for the child is good for the family and vice versa. TIES included an IFPS model and incorporated principles of whole-family approaches. The proposal remained in review by TDHS' 2Gen consultants at the time a new TIES' grant application was submitted to ACF in 2017. It should be noted, however, that funding in the proposal only covered about half of the services being offered through the TIES' project.

Additionally, the PD/PI and Co- PD/PI continued to engage in conversations with the Substance Abuse Services' division of TDMHSAS regarding prevention and/or recovery support funding that might be reimbursement for some TIES' services. Conversations with TennCare continued as well. All TIES' therapists had been certified to bill through TennCare.

## Sustainability Glitches

The end of TDCS' In Home Tennessee initiative and changes in their leadership assigned to work with TIES as a sustainability option resulted in a change in support for sustaining the project with funding. The newly assigned leadership gave funding priority to evidence-based interventions found on the California Evidence-Based Clearinghouse (CEBC) web site. TIES is a blend of two evidence-based programs with high ratings related to child welfare on CEBC (i.e., Homebuilders and Seeking Safety), but the TIES' model itself was not found on the CEBC web site. Regardless, the PD/PI continued to reach out to TDCS. TDMHSAS and TDCS commissioners further continued conversations regarding TIES. The TIES program was very much liked by TDCS regions where services were being provided, as well as regions desiring services.

TDMHSAS along with seven partners signed MOUs and made application for a new RPG for TIES 2. Unfortunately, the project was not funded. Nevertheless, TDCS inquiries about TIES continued. Some RAs reported how their regions really need the services that used to be provided by the TIES grant project.

## 9. Dissemination

### Dissemination Strategies

The TIES program team used a combination of presentations, media products, and reports to disseminate information and updates about the TIES program.

The TIES evaluation team used presentations as their primary dissemination strategy. Presentations included formal panel or poster presentations at conferences, such as the American Evaluation Association (AEA) and Child Welfare League of America (CWLA) annual meetings. Often, these presentations were produced and presented with the TIES PD/PI and program staff. The evaluation team also produced routine presentations for regularly scheduled Advisory/Steering Committee

meetings and Evaluation Boosters with TIES program staff that shared updates on key evaluation activities and data analyses. On a few occasions, the evaluation team was also asked to present on preliminary TIES' evaluation findings at community meetings, such as R- Connection (Rutherford County group), regularly attended TIES program staff and/or the PD/PI.

The evaluation team also produced a one-page visual report for each of the TDCS regions represented in the TIES service area. These regional one-pagers provided TIES outcomes data specific to each region, as well as information about the TIES model and evaluation data.

### Dissemination Products *(Items noted with a \* are included in Appendix III)*

#### *Presentations*

- "BSF2TIES: An exemplary, evaluation-informed follow-up intervention", 2015 American Evaluation Association annual conference, Chicago IL\*
- "It Takes a Village: Keeping Families Together Using a Community-Ecological & Strengths-Based Approach", 2016 National Child Welfare League of America conference, Orange County, California.
- "TIES' Fidelity Monitoring: Fiscally Responsible, Growth Inducing and Maybe Fun?", 2017 National Child Welfare League of America conference, Washington, DC.
- "Retaining Staff and Overcoming Turnover" Panel, 2017 RPG Annual Meeting, Washington, DC
- "Therapeutic Intervention, Education, and Skills" Poster, 2013 RPG Annual Meeting, Washington, DC\*

#### *Reports*

- TIES Regional One-pagers \*
- R-Connection 2015 TIES Evaluation Update
- TIES Advisory/Steering Committee (report examples from November 2016 and September 2017)

### News/Media

- Parents promote positive impact of TIES' in news video (In the "Fetal assault" picture)
- TIES' [website](https://www.tn.gov/behavioral-health/mental-health-services/mental-health-services-for-children-and-youth/support--education--and-outreach/ties--therapeutic-intervention--education--and-skills.html) (https://www.tn.gov/behavioral-health/mental-health-services/mental-health-services-for-children-and-youth/support--education--and-outreach/ties--therapeutic-intervention--education--and-skills.html)
- TIES' video: Engaging Families When There Is Parental Substance Abuse (provided under separate cover)

### Other

- TIES-sponsored regional conferences and conferences participated in by TIES
- TIES-sponsored regional trainings: An expert presentation on in-home services and Seeking Safety training by certified trainer, both in 2015
- Shared site visit reports from (See final NFPN report.)
- TIES' Program Manual (provided under separate cover)

## Achievements/Recognition

TIES' achievements have also been disseminated locally, statewide, and nationally. These include:

- Recognition of TIES' therapists by TDCS, Rutherford County
- TIES identification as a resource for "protecting children from prescription drug abuse" in an

article on [kidcentraltn.com](http://kidcentraltn.com). TIES was the only program resource in the state listed in this article.

- The PD/PI's recognition as Collaborative Excellence Award recipient, 2016 National Child Welfare League of America conference, Orange County, California



TIES PI, Dr. Edwina Chappell, (pictured center) receives Collaborative Excellence Award at CWLA 2016.



TIES staff receive TDCS award during Child Abuse Awareness month.

# 10. Conclusions & Key Recommendations

## Grant Implementation Experience

**Staff changes at child welfare can impact sustainability efforts.** Our project worked diligently cultivating relationships with TDCS staff connected with the In-Home Tennessee initiative. These relationships had resulted in positive conversations about the possibility of funding for the TIES' project. However, administrative staff changes occurred during the last 6-8 months of the grant project and all momentum was lost. New staff did not have prior knowledge about the TIES' grant project, resulting in a change in conversations regarding possible funding.

Most participant families described their experiences with the TIES program in positive terms. A portion of the program gathered families' program impressions at mid-intervention and again at case closure. This feedback was used to provide in-the-moment feedback which offered the program and therapists the opportunity to make rapid course corrections. The TIES program took seriously the task of building safe and trusting relationships with participants. As a result, program staff found that **engaged families were better able to make emotional and behavioral changes.**

## Program Lessons Learned

The lessons learned from the TIES program were extensive but most therapists left with the sense that we are serving the participant families and that **client voice matters above almost all else.** Clinicians must practice deep listening skills and always attend to the emotional safety and engagement of clients.

*As a system, we must find more ways to bring families to the table to discuss safety and substance abuse without fear of repercussions.*

Maintaining an attitude of respect for the people we work with allows them to feel safe enough to branch out into

formerly avoided topics and solutions. Our therapists heard first-hand the many ways that people were traumatized and how substance abuse initially felt like an answer to the pain but then led to more trauma. Families and children cried, laughed, yelled, and celebrated with our workers as they utilized the TIES program. Many describe feeling as though the TIES worker was a part of the family because they had never experienced the kindness and honesty of a helping professional before. As a system, we must find more ways to bring families to the table to discuss safety and substance abuse without fear of repercussions. Families such as those participating in TIES tend to have

higher ACE scores which brings a complexity to treatment that is often overlooked by people coming from stable and supportive upbringings.

If we were to implement the TIES program again, it would be important to **incorporate direct means for treating trauma**, such as the inclusion of EMDR. Rural areas have long experienced a dearth of highly trained therapists who can get paid higher salaries in private practice or

metropolitan areas. Highly trained therapists tend to have more trauma experience than therapists earlier in their careers which complicated finding appropriate referrals to long-term trauma treatment providers. As such an intervention such as EMDR which can often help people experience a more rapid relief from trauma-related symptoms would be an important addition to a program that already excels at understanding family systems and building safety.

## Evaluation Lessons Learned

### *Program Implementation & Outcomes*

**TIES was particularly effective in improving parenting capabilities and decreasing caregiver substance use.**

While many of the variable domains measured in the TIES evaluation improved significantly from baseline to program exit, increases in parenting capabilities and decreases in substance use were maintained through the 12-month post-services mark at statistically significant levels. Some of these changes may have been affected by participant self-report on the instruments used to assess these variables, but they still appear to be the two areas of biggest impact from participation in TIES services.

**A combination of IFPS and Seeking Safety had positive effects on a population with extensive trauma histories.**

Caregivers who participated in the TIES program reported higher than average

Adverse Childhood Experiences (ACEs) – over 50% reported 4 or more ACEs – and 20% of those who completed the TSC-40 had clinically significant levels of trauma symptomology when they entered the program. Despite this, caregivers across the board saw improvements, suggesting the key components of these models are useful for working with this population.

**Longer service duration may be needed to further decrease mental health symptomology.**

While caregivers reported significant decreases in their trauma and depression symptomology between baseline and discharge, symptoms typically reappeared at the 6-month mark. Trauma symptoms did remain below baseline levels, but depression symptoms surpassed baseline levels. More time with IHTs or warm hand-offs to other behavioral health care providers may be needed to ensure that clients receive ongoing support for mental health issues.

## *Evaluation Methods*

**Select a new collaboration tool.** The Frey's Collaboration Tool was originally chosen to assess partner collaboration across the regional partnership because it was valid, reliable, and relatively short to minimize burden on respondents. However, we found that while understanding the levels of collaboration was helpful, it would have been more beneficial to have data that helped us understand how and why the partnership was working. As described above, we saw decreases in the level of collaboration, but did not have data on what specific domains we could work on to improve collaboration. In addition, it was still difficult to get partners to complete the assessment, especially toward the end when the representatives from partner organizations changed.

### **Remove 24-month follow ups**

The evaluation design included 24-month follow ups with families enrolled in the evaluation to better evaluate the retention of any improvements families saw as a result of the TIES program. However, families in the TIES program experienced quite a bit of transience and change and these follow-ups required an incredible amount of time and staff resources for a low return. We were only able to conduct 24-month follow-ups with 20 families. In addition, families were connected to additional services as result of their participation in TIES and the longer time frame makes it difficult to ascertain the degree to which the effects we see are truly attributable to the program.

**Build and maintain strong relationships with state agencies to obtain administrative data.** We experienced numerous challenges developing our comparison group (described in Section 8). Though we planned ahead, unforeseen changes to statewide data collection and inconsistent application of these changes resulted in adjustments to our original plan. Despite this, the strong relationship and open communication we had with the Data Director at the TN Department of Children's Services enabled us to rework the comparison group to the best of our ability given the limitations with the data. Had this relationship not existed, it is likely that we would have been unable to obtain any comparison data at all.

## Appendix I. Comments from the TIES Participant and TIES Referent Satisfaction Surveys

### Parent/caregiver Comments

**“My therapist was available at times that were convenient to me.” n = 237, Always= 90.5%**

- My family and I really appreciate everything that (Named therapist) have done for us.
- Never had scheduling issues. If something came up she worked around it, or took me to it or simply understood and rescheduled.
- She always made sure we were ok and planned our meetings around our time.
- She was unless she was in another appointment which is completely understandable.
- She helped me in and most way that she could; like getting me to appointments and taking me places I needed to be and to work in time.
- Never due to her personal life.
- Yes, greatly. Very flexible, available and helpful.
- Mrs. (Named therapist) has been there for us and took or returned our calls every time even when I should have thought to just use my grounding exercises.
- Always here when she was supposed to be as well as a phone call away.
- (Named therapist) never cancelled on me she always on time.
- I had a lot of crisis issues and was always able to reach (Named therapist) by phone where she was always ready and able to counsel me. She NEVER shows signs of irritation or made me feel like I was inconveniencing her.
- Yes she was always able to work around my schedule.
- (Named therapist) always worked around my schedule and whenever something came up and I had to reschedule, he was completely understanding.
- (Named therapist) has been very flexible with my schedule
- (Named therapist) worked around our schedule and made the sessions convenient and easy to keep . She even worked around things that happened day to day that we had not foreseen!
- She has never budged in. It was always when I was able to be seen
- Made completing program a lot easier
- She was very flexible with her hours and schedule 9/9/2015 9:37 AM
- We always had a schedule that worked for us and anytime with Ms. (Named therapist) was a blessing simple because we have learned so much.
- She was really able to work with us in our crazy schedule that we have and be able to meet us when we were running late, etc.
- I was able to call her any time of the day and she always answered my calls and if she didn't she always called me back.
- Anytime I had a change of work schedule she was always willing to reschedule.
- Very flexible. (Named therapist) would come anytime that was convenient for my family. Including last minute changes!
- Help me through all my eight weeks, helping me get my goals accomplished. Stuck by me a 100% Never a time I'm not able to get in touch with you.
- Even came at 6 am when we needed her.
- (Named therapist) has always been there for me when i needed her. She is the best.

- She always went out of her way to be convenient to the needs of me and (my child).
- Mrs. (Named therapist) made sure I could call when I needed her.
- Always there on time and was not leaving until her job was done point blank unless I had to work or some type of appointment.
- She was there for me
- She told me to call if I needed anything
- I have a very busy life with 4 kids and there were a few times of rescheduling and missed days but (Named therapist) was always there for us when we needed her.
- Flexible and understanding of my time schedules
- She was easy to work with around the daily events of my family

**“I feel that my in-home therapist honestly cares about the well-being of my child and family.” – n = 260, almost always/always = 99.2%**

- She always listened even when it was chaotic.
- Absolutely! she took the time to get to know each of them and my girls ended up kinda upset when it was time for her to leave.
- (Named therapist) was very great and I was able to open up and talk to her.
- (Named therapist) is a very nice woman. Every time she comes out she always makes sure me, my kids, and my fiancé are ok. She also tells us to be careful when and if we leave the house. She has made herself available to us anytime we needed her and we really appreciate that.
- He has been really friendly and easy to work with.
- Never once did I ever doubt through the whole process that (Named therapist) was on my side. I could see, when I hurt she hurt for me. When I was proud, she was proud of and for me. Never for a second questioned if she cared.
- I felt very comfortable with her
- Always asking questions on how we were feeling keeping us up to date on our feet
- She helped me with (my children) :)<3
- I can tell genuinely cares about us
- She was the best experience I have had with a therapist ever. She didn't just tell you what you wanted to hear but what you needed to hear. Very helpful
- The best (Named therapist) has helped us in so many ways. I think that DCS was the best thing that happened to us because it gave us (Named therapist).
- She always makes sure that I am coping with the things that are happening in my every day life. Also she helps me with long term goals for my family and I.
- He's a good person
- They loved my (child), they helped me a lot in so many ways even miss (Named therapist)
- She is awesome
- Great attitude/demeanor, never made anyone feel "judged," provided good information and anecdotes.
- She is the best I really felt that connection with her
- Listened to our concerns and issues and gave feedback.
- I think I learned a lot from him
- (Named therapist) has always been there anytime I needed her
- She was very considerate and caring towards my family and our well being. She was a friend as well as a therapist.
- I really like Mrs. (Named therapist) I feel that she does not judge me she gives me motivation she helps me and my family.

- I love how much she has shown her concerns me cares about the well being of my child. (Named therapist) has always shown great concern for the well being of my family. I am usually able to tell when there is an issue I AM struggling with that follows her home in her thoughts at night.
- She is very compassionate about myself and her job
- She was always teaching me some type of new tool to learn how to deal with everyday life. (Named therapist) has shown my family lots of kindness and support for future success. We are grateful to have had this program with such a caring and compassionate therapist. (Named therapist) is very genuine
- (Named therapist) has taught me about how my baby's brain develops and what I can do to promote healthy growth.
- Mrs. (Named therapist) was always concerned about the safety and well being of me and my kids she made me feel like I was a better person and that I could talk to her about any issue and that was greatly appreciated cause I usually don't open up about personal things but I felt really comfortable to open up to her.
- (Named therapist) is such a sweet heart, and my girls and I just loved working with her.
- (Named therapist) showed that she truly cared about my kids.
- She helps me find ways to be a better person
- She was great I am very impressed with the care
- (Named therapist) has shown for our family.
- She cares a great deal about her job and helping people
- He has always been a great person and very insightful. I am very grateful.
- She helped us get the things we needed for the kids and we have also learned that we can have a great relationship with our children and each other.
- i am very grateful for (Named therapist) she helped me and my family get a lot accomplished.
- I think that Mrs. (Named therapist) was very caring and really wanted to help us with the issues that our family has had with the transition into the house.
- (Named therapist) is a wonderful person that I could call and talk to anytime and really cared about what was going on in my life.
- A person truly amazing.
- She was a good one I have hand in my home
- She has always expressed her care and well-being for my children and us since day one. Mrs. (Named therapist) really cares a lot about her family's.
- I was able to talk to her honestly about anything and she had great feedback that helped me out.
- (Named therapist) was really genuine. I felt like I could open up to her and her not judge. She is absolutely a compassionate person.
- seems like he cares a lot
- She would talk to them and ask how their days were going.

### **“What do you like most about TIES?” n = 262**

- Learning new skills
- We liked being taught new communication skills and we like our in home therapist.
- I learned a lot of new skills
- That you can express your feelings no matter what
- Therapist works with my schedule

- The support
- That it has helped heal my family
- That my therapist truly showed compassion towards my family and my situation
- My therapist. She was always there and wonderful to my family.
- My therapist worked around my schedule very well
- The in-home service and the attention to help from my therapist.
- Being able to trust, relate, and learn to cope
- (Named therapist) was wonderful with our family. she never judged us and helped be us better people
- I like that this program really tries to help you with getting you're life back. I know that it helped me because I was in a horrible situation and it gave me the knowledge and courage to be able to do it on my own; meaning to take care of my sons on my own and to have confidence in myself.
- The care they have and the understanding they show
- The help they give family's an how caring she is
- That they are there to support and help us and not judge us
- That its an in-home program, that works around your schedule and helps your family meet all goals, and gives you the information you need if you need more outside help.
- It let me to be able to find myself in different ways that I never looked at myself before. Showed me different ways to look and approach things, situations, handle children differently.
- That they are very willing to help with anything they can and provide information on anything you ask about
- How helpful she was, no matter what was going on she always answered the phone and was always there for us.
- Caring and helpful service provided. (Named therapist) was a great help through all of this.
- The different things ties works with
- The openness of the program and how the therapist handled everything with a non-judgmental manner
- Skills learned to make myself a better mother and person
- How organized and detailed in family the program is
- I like that it is family oriented.
- Learned more about my self control
- The info it provided.
- At home services
- It was a good course to allow families and people to see ways to seek help and to create bonds and ways to realize ways to determine more self discipline.
- It helped me get everything in my family better
- The information was much more than I thought it would be. Opened my eyes and helped me recognize what I had ultimately been denying. Plus the fact my therapist was always there no matter what. Give you a wonderful sense of never being alone.
- The way she has brought our family closer
- she talks about a little of everything
- Being able to connect with her and share experiences on substances. Which was never any good experiences, we talked about what went wrong in our lives because of substances
- How dedicated they are to helping families and how well their services
- The convenience of having a therapist come to the house
- The resources and positive impact this experience has had on myself and my family has been forever helpful for us to better ourselves as a whole.

- That they made me comfortable and realize the risk of drug use
- Talking about my family
- How convenient the classes are and that they come to you plus their able to help transport you to Dr. appt's, meetings, etc.
- My therapist
- They helped me and (my child) with stress
- The program itself it's awesome
- I love the fact that my therapist was able to come to my home.
- The resources they had available
- They help with more than just the DHS issues. anything you need (Named therapist) will try her best to help you.
- The new things I learned on how to cope with situations!

**“I feel that TIES has helped my family.” n = 239, Yes, a great deal= 91.6%**

- We are overall more on the same page with each other and have resources and new skills.
- I'm in awe of how this program helped me and my family.
- I love this program. This time with (Named therapist) has been wonderful. I've gotten so much accomplished with this program.
- Helped me and my family get closer together and helped me become a better parent.
- They made us believe in ourselves and gave us the confidence to succeed.
- It's helped me a lot and I want to thank (Named therapist) for that.
- My therapist has helped my family more than anyone or anything ever has.
- I really just needed it to get my kids back but i have learned a lot of new skills that I have applied to my parenting and other aspects of my life and we did enjoy it because (Named therapist) makes it interesting and is a pleasant person to be around.
- I am thankful for this opportunity, even though we were introduced under not-so-good circumstances.
- My kids listen better now.

## TDCS Comments

TDCS investigator Madalyn Adams said,

- “I have received contact from each and every family that has worked with this program on my referral—that they were thankful and beyond appreciative of the services provided. Richard Boyd and the TIES program have presented themselves and their services as exemplary, definitely a program to set a standard by, and worthy of this presentation of our appreciation.

*From a Family Services Worker II to the TIES Program Coordinator (February 2016)*

Good afternoon,

I just wanted to take a moment to let you know about my experiences working with the TIES program with therapist (Named therapist).

I have referred to this program in the past, when it was Building Strong Families, and I was pleased with the services. However, this time around, I am beyond pleased. Ms. (Named therapist) has made herself available at all times for the family as well as with me. She is so on top of things. She sends reports on the clients' progress often, which is greatly appreciated. I have not wondered for one moment what is going on in this case because she has kept me so informed. She is always so polite, respectful, and friendly. She truly is one of the best service providers I have EVER worked with in the 9 years I have been doing this job. I wish there were more of her.

I am sorry to take up your time but I just felt like I needed to let you know my experience. I know that sometimes it is always the negative things that are reported to you so I just felt it necessary to let you know this positive experience.

Thank you so much for all you do!

### **TIES Receives TDCS Award**

April 18, 2014

The Therapeutic Intervention, Education and Skills (TIES) program of Centerstone recently received an award recognizing its work for the children of Rutherford County at a Child Abuse Awareness Month event held by the Tennessee Department of Children Services (TDCS) in Murfreesboro.

TIES is a program for children 18 and younger who are at risk of being placed outside the home because of a parent or caretaker's substance use. Services include intensive in-home therapy, crisis intervention, skill-building, case management, referral services, and Seeking Safety, a component to address trauma. This free program is provided through a grant from the Administration for Children and Families that is managed by the Tennessee Department of Mental Health and Substance Abuse Services and serves Bedford, Cannon, Coffee, Davidson, Marshall, Rutherford and Warren counties.

## Appendix II. Data Collection & Baseline Equivalence Tables

**Table A2.1.** Enrollment and data collection

Participant Status	# of Cases	# of Adults	# of Focal Children
Enrolled in program	305	526	305
Consented to evaluation	203	203	NA
Completed baseline	203	203	NA
Completed follow-up	162	162	NA

**Table A2.2.** Characteristics of families who did and did not complete **DISCHARGE** data collection.

Baseline Characteristic	Discharge Follow-up Sample Size	Sample with follow-up data: Percent or mean (standard deviation)	Missing Discharge follow-up sample size	Sample with missing follow-up: Percent or mean (standard deviation)	Mean difference	Test and p-value of difference
<b>County</b>	<b>162</b>		<b>41</b>			$\chi^2$ 0.282
Bedford	21	13%	10	24%		
Cannon	10	6%	3	7%		
Coffee	18	11%	4	10%		
Davidson	19	12%	3	7%		
Marshall	24	15%	4	10%		
Rutherford	32	20%	12	29%		
Warren	38	23%	5	12%		
<b>Focal Child Age</b>	<b>162</b>	<b>4.1 (4.9)</b>	<b>41</b>	<b>3.4 (4.7)</b>		$t$ 0.454
<b>Focal Child Sex</b>	<b>162</b>		<b>41</b>			$\chi^2$ 0.860
Female	78	48	21	51%		
Male	84	52	20	49%		
<b>Focal Child Drug Exposure</b>	<b>162</b>		<b>41</b>			$\chi^2$ 0.676
Drug exposed	46	17.9%	13	26.8%		
Not confirmed	116	71.6%	28	68.3%		
<b>Focal Child Race</b>	<b>162</b>		<b>41</b>			$\chi^2$ 0.317
American Indian/Alaska Native	1	0.6%	0	0%		
Black/African American	15	9.3%	3	7.3%		
White	128	79%	37	90.2%		
Multiracial	18	11.1%	1	2.4%		

**Table A2.2.** continued

Baseline Characteristic	Discharge Follow-up Sample Size	Sample with follow-up data: Percent or mean (standard deviation)	Missing Discharge follow-up sample size	Sample with missing follow-up: Percent or mean (standard deviation)	Mean difference	Test and p-value of difference
<b># of previous substantiated maltreatment allegations</b> (for focal child)	<b>162</b>	<b>.41 (.53)</b>	<b>41</b>	<b>.49 (.64)</b>	<b>-.080</b>	<b>t 0.406</b>
<b># of previous removals</b> (for focal child)	<b>162</b>	<b>.07 (.28)</b>	<b>41</b>	<b>.05 (.22)</b>	<b>.020</b>	<b>t 0.681</b>
<b>FFA Age</b>	<b>162</b>	<b>30.97 (7.41)</b>	<b>41</b>	<b>31.5 (7.77)</b>	<b>-0.53</b>	<b>t 0.685</b>
<b>FFA Income</b>	<b>161</b>		<b>40</b>			<b>χ<sup>2</sup> 0.122</b>
\$0-9,999	112	68.2%	25	62.5%		
\$10,000-19,000	20	12.4%	10	25%		
\$19,001 or higher	29	18%	5	12.5%		
<b>FFA Highest Education</b>	<b>161</b>		<b>40</b>			<b>χ<sup>2</sup> 0.881</b>
Less than high school	3	29.8%	13	32.5%		
High school diploma/GED	63	39.1%	17	42.5%		
Some college/ vocational/ technical	4	16.8%	6	15%		
Diploma/degree	23	14.3%	4	10%		
<b>FFA Employment</b>	<b>162</b>		<b>41</b>			<b>χ<sup>2</sup> 0.399</b>
Not in labor force	60	37%	16	39%		
Unemployed	45	27.8%	8	19.5%		
Self-employed	3	1.9%	0	0%		
Part-time employment	11	6.8%	6	14.6%		
Full-time employment	43	26.5%	11	26.8%		
<b>FFA Relationship Status</b>	<b>162</b>		<b>40</b>			<b>χ<sup>2</sup> 0.525</b>
Single (unmarried and not cohabiting)	46	28.4%	16	40%		
With focal child's biological parent (married or cohabiting)	58	35.8%	13	32.5%		
With other individual (married or cohabiting)	24	14.8%	4	10%		
Divorced/separated/ widowed	34	21%	7	17.5%		

**Table A2.2.** continued

Baseline Characteristic	Discharge Follow-up Sample Size	Sample with follow-up data: Percent or mean (standard deviation)	Missing Discharge follow-up sample size	Sample with missing follow-up: Percent or mean (standard deviation)	Mean difference	Test and p-value of difference
<b>FFA Depression Symptomology (at baseline)</b>	<b>161</b>		<b>39</b>			$\chi^2$ 0.538
Severe	46	29%	11	28%		
Moderate	36	22%	5	13%		
Mild	38	24%	10	26%		
No symptomology	41	25%	13	33%		
<b>RDA Significant Trauma Symptomology (at baseline)</b>	<b>162</b>		<b>41</b>			$\chi^2$ 1.000
Sig. trauma indicated	31	19.1%	8	19.5%		
No sig. trauma indicated	131	80.9%	33	80.5%		
<b>RDA High Alcohol Use (at baseline)</b>	<b>152</b>		<b>37</b>			$\chi^2$ 0.525
High alcohol use indicated	13	9%	2	5%		
No high alcohol use indicated	139	91%	35	95%		
<b>RDA High Drug Use (at baseline)</b>	<b>151</b>		<b>36</b>			$\chi^2$ 0.858
High drug indicated	73	48%	18	50%		
No high drug use indicated	78	52%	18	50%		

\*Significantly different from zero at the .10 level, two-tailed test.

\*\*Significantly different from zero at the .05 level, two-tailed test.

\*\*\*Significantly different from zero at the .01 level, two-tailed test.

**Table A2.3.** Characteristics of families who did and did not complete **12-MONTH** data collection

Baseline Characteristic	Discharge Follow-up Sample Size	Sample with follow-up data: Percent or mean (standard deviation)	Missing Discharge follow-up sample size	Sample with missing follow-up: Percent or mean (standard deviation)	Mean difference	Test and p-value of difference
<b>County</b>	<b>62</b>		<b>141</b>			$\chi^2$ 0.541
Bedford	11	18%	20	14%		
Cannon	4	6%	9	6%		
Coffee	4	6%	18	13%		
Davidson	10	16%	12	9%		
Marshall	8	13%	20	14%		
Rutherford	11	18%	33	23%		
Warren	14	23%	29	21%		
<b>Focal Child Age</b>	<b>62</b>	<b>5.46 (5.45)</b>	<b>141</b>	<b>3.23 (4.52)</b>		<b>t 0.007</b>
<b>Focal Child Sex</b>	<b>62</b>		<b>141</b>			$\chi^2$ 0.591
Female	32	53%	67	48%		
Male	30	48%	74	52%		
<b>Focal Child Drug Exposure</b>	<b>62</b>		<b>141</b>			$\chi^2$ 0.311
Drug exposed	15	24%	44	32%		
Not confirmed	47	76%	97	69%		
<b>Focal Child Race</b>	<b>62</b>		<b>141</b>			$\chi^2$ 0.296
American Indian/Alaska Native	1	2%	0	0%		
Black/African American	5	8%	13	9%		
White	48	77%	117	83%		
Multiracial	8	13%	11	8%		
<b># of previous substantiated maltreatment allegations (for focal child)</b>	<b>62</b>	<b>.48 (.57)</b>	<b>141</b>	<b>.40 (.55)</b>		<b>t 0.304</b>
<b># of previous removals (for focal child)</b>	<b>62</b>	<b>.11 (.37)</b>	<b>141</b>	<b>.04 (.20)</b>		<b>t 0.081</b>
<b>FFA Age</b>	<b>62</b>	<b>32.9 (8.72)</b>	<b>141</b>	<b>30.2 (6.71)</b>		<b>t 0.015</b>

**Table A2.3.** continued

Baseline Characteristic	Discharge Follow-up Sample Size	Sample with follow-up data: Percent or mean (standard deviation)	Missing Discharge follow-up sample size	Sample with missing follow-up: Percent or mean (standard deviation)	Mean difference	Test and p-value of difference
<b>FFA Highest Education</b>	<b>61</b>		<b>140</b>			$\chi^2$ 0.946
Less than high school	18	29%	43	31%		
High school diploma/GED	23	38%	57	40%		
Some college/ vocational/ technical	11	18%	22	16%		
Diploma/degree	9	15%	18	13%		
<b>FFA Income</b>	<b>60</b>		<b>141</b>			$\chi^2$ 0.488
\$0-9,999	38	63%	99	70%		
\$10,000-19,000	9	15%	21	15%		
\$19,001 or higher	13	22%	21	15%		
<b>FFA Employment</b>	<b>62</b>		<b>141</b>			$\chi^2$ 0.537
Not in labor force	20	32%	56	40%		
Unemployed	21	34%	32	23%		
Self-employed	1	2%	2	1%		
Part-time employment	4	7%	13	9%		
Full-time employment	16	26%	38	27%		
<b>FFA Relationship Status</b>	<b>61</b>		<b>141</b>			$\chi^2$ 0.180
Single (unmarried and not cohabiting)	18	30%	44	31%		
With focal child's biological parent (married or cohabiting)	16	26%	55	39%		
With other individual (married or cohabiting)	10	16%	18	13%		
Divorced/separated/ widowed	17	28%	24	17%		
<b>FFA Depression Symptomology (at baseline)</b>	<b>60</b>		<b>140</b>			$\chi^2$ 0.647
Severe	18	30%	36	26%		
Moderate	15	25%	33	24%		
Mild	9	15%	32	23%		
No symptomology	18	30%	39	28%		

**Table A2.3.** continued

Baseline Characteristic	Discharge Follow-up Sample Size	Sample with follow-up data: Percent or mean (standard deviation)	Missing Discharge follow-up sample size	Sample with missing follow-up: Percent or mean (standard deviation)	Mean difference	Test and p-value of difference
<b>RDA Significant Trauma Symptomology (at baseline)</b>	<b>62</b>		<b>141</b>			$\chi^2$ 0.973
Significant trauma symptomology indicated	12	19%	27	19%		
No significant trauma symptomology indicated	50	81%	114	81%		
<b>RDA High Alcohol Use (at baseline)</b>	<b>59</b>		<b>130</b>			$\chi^2$ 0.854
High alcohol use indicated	5	8%	10	8%		
No high alcohol use indicated	54	92%	120	92%		
<b>RDA High Drug Use (at baseline)</b>	<b>58</b>		<b>129</b>			$\chi^2$ 0.482
High drug indicated	26	45%	65	50%		
No high drug use indicated	32	55%	64	50%		

**Table A2. 4.** Baseline equivalence of sample used to show program impact: TIEs and non-TIEs, All TDCS tracks

Baseline characteristic	Sample Size	Program Group Mean (SD)	Comparison Group Mean (SD)	Mean Difference	P-value of Difference
Child's age at case open	164 (328)	3.23 (4.32)	3.69 (4.05)	.45994	.321
Child's current age	164 (328)	4.74 (4.46)	5.91 (4.00)	1.165	.013***

\*\*\*Significantly different from zero at the .01 level, two-tailed test.

**Table A2. 5.** Removal outcome status by TIES vs. non-TIES groups, All TDCS tracks

Group	Outcome		
	Removed	Not Removed	Total
TIES (tx)	19	145	164
Non-TIES (non-tx)	28	136	164
<b>Total</b>	47	281	

[OR=.636; CI .34 – 1.19; p=0.16]

**Table A2. 6.** Baseline equivalence of sample used to show program impact: TIEs and non-TIEs, TDCS Investigation track

Baseline characteristic	Sample Size	Program Group Mean (SD)	Comparison Group Mean (SD)	Mean Difference	P-value of Difference
Child's age at case open	164 (328)	2.64 (4.04)	3.11 (3.86)	.46421	.405
Child's current age	164 (328)	4.38 (4.16)	5.75 (3.61)	1.374	.013***

\*\*\*Significantly different from zero at the .01 level, two-tailed test.

**Table A2. 7.** Removal outcome status by TIES vs. non-TIES groups, TDCS Investigation track

Group	Outcome		
	Removed	Not Removed	Total
TIES (tx)	12	89	100
Non-TIES (non-tx)	24	75	100
<b>Total</b>	36	164	

[OR=.422; CI .20 - .91; p=0.028]

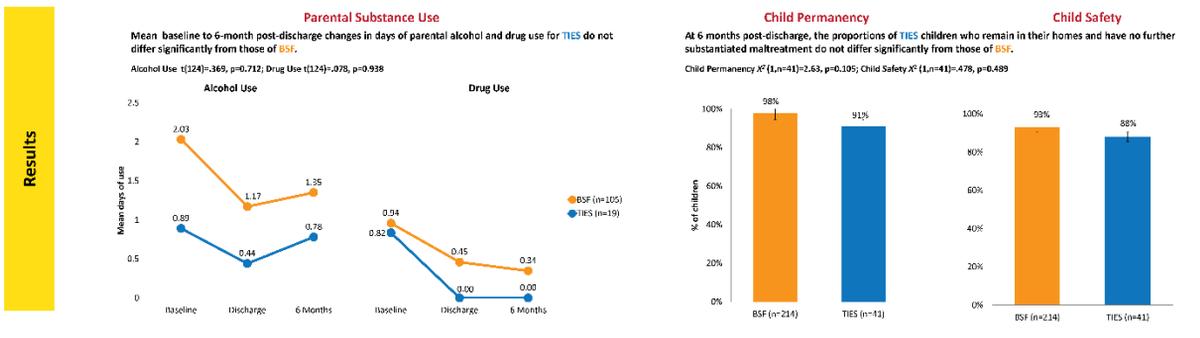
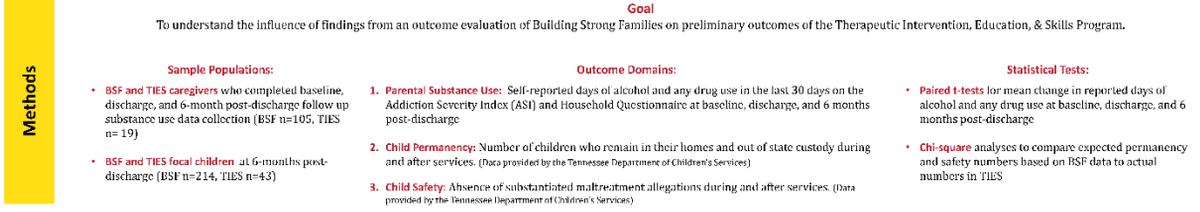
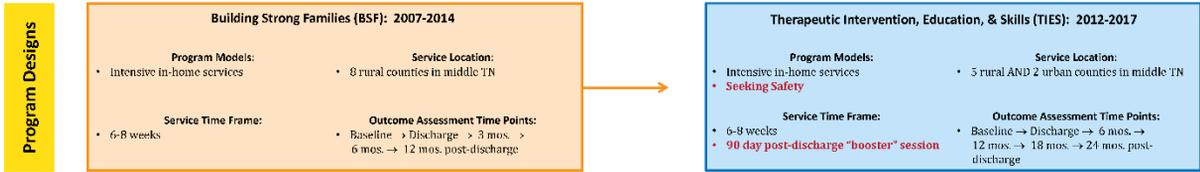
# Appendix III. Dissemination Products

“BSF2TIES: An exemplary, evaluation-informed follow-up intervention”, 2015 American Evaluation Association annual conference, Chicago IL

## BSF2TIES: An Exemplary, Evaluation-informed Follow-up Intervention

Kathryn Mathes, PhD; Randall Reiserer, PhD; Edwina Chappell, PhD; Hannah Wohltjen, MA, MPH; and Wendy Shuran, BS  
Centerstone Research Institute

**Introduction:** In Middle Tennessee in 2008, over 50% of children placed in state custody were removed from their homes due to parental substance abuse.<sup>1</sup> Projections showed that this trend would continue in 2013 with up to 22,714 incidents of child abuse reports resulting from drug exposure.<sup>2</sup> The abuse of prescription opioids is a key contributing factor to this trend. Tennessee ranked first in the nation for the non-medical use of pain relievers in the past year among individuals aged 26 and older, and in 2012, prescription opioids were the top reason for those in treatment programs funded by the Tennessee Department of Mental Health and Substance Abuse Services (TDMHSAS).<sup>2,3</sup> To address these issues among families, TDMHSAS received grant funds from the Administration of Children and Families to implement the Building Strong Families (BSF) program in eight rural Tennessee counties and to evaluate the program’s effectiveness in reducing parental substance use and preventing children from being removed from their homes. BSF ended in 2014, but its structure and core elements significantly informed a follow-up Tennessee program: Therapeutic Intervention, Education, and Skills (TIES).



**Conclusion:** Preliminary analyses indicate that the addition of the Seeking Safety model and a 90-day booster to the TIES program is producing comparable outcomes to those of BSF. While the outcomes of these early TIES participants are not significantly better than those of BSF, the majority of TIES focal children are remaining safe and in their homes and caregivers are showing overall decreases in alcohol and drug use after receiving services. A key limitation of this preliminary study of the TIES data is the small TIES sample size and it is possible that the sample is not representative of the total TIES program population. It is also possible that the addition of an urban service region in TIES has influenced these preliminary outcomes. This study highlights the importance of ongoing evaluation of program changes. If the additions to the TIES program ultimately do not influence outcomes, resources of time, staff, and money can be allocated in different ways. These results will be used to inform future program changes and in-home family preservation service provision in the state.

References:  
1. Tennessee Department of Mental Health and Substance Abuse Services. (2014). Annual Report to the Governor. Nashville, TN.  
2. Office of the Auditor General. (2014). Tennessee Department of Mental Health and Substance Abuse Services. Nashville, TN.  
3. Tennessee Department of Mental Health and Substance Abuse Services. (2012). Annual Report to the Governor. Nashville, TN.



# "Therapeutic Intervention, Education, and Skills" Poster, 2013 RPG Annual Meeting, Washington, DC

## Therapeutic Intervention, Education, & Skills (TIES)

Tennessee Department of Mental Health & Substance Abuse Services  
Centerstone Research Institute

Key Partners	Program and Services	Evaluation	Goals for RPG
<p><b>Centerstone of Tennessee</b> <b>Centerstone Research Institute</b> <b>Tennessee Department of Children Services (TDCS)</b></p>	<p><b>TIES</b> purpose is to establish a regional partnership that provides, through interagency collaboration and integration of programs, comprehensive, evidence-based, trauma-informed activities and services that will increase well-being, improve permanency, and enhance the safety of children who are in, or at risk of out-of-home placement as a result of parent/caretaker substance abuse for 500 families.</p> <p><b>TIES</b> will provide intensive in-home services via six Therapists who will be integrated into existing community-based mental health teams that already serve the target counties. Services to be provided include screening/assessment, counseling, crisis intervention, skill-building activities/education, wraparound service linkages (e.g., substance abuse and/or mental health treatment, prevention programs, recovery supports, other ancillary services as needed), case management, and follow-up.</p> <p><b>Key Elements:</b> 1) intervention at the crisis point within 24 hours of referral, 2) Treatment in family's home, 3) 24/7 accessibility/ responsiveness, 4) intensity-40-50 hours over 4 weeks, 5) research-based interventions, and 6) flexibility.</p>	<p>For purposes of this evaluation an experimental design is not feasible, thus a case overflow/non-participation design will be used where families who are otherwise eligible for <b>TIES</b> do not choose to or cannot participate and serve as the comparison group.</p> <p>Outcomes measured by the NCFAS for non-participating families will be compared with outcomes for families that are enrolled in <b>TIES</b>. Non-participating families will be consented into the evaluation and incentivized to take the survey instruments at baseline, 6 and 12 months. In order to strengthen the evaluation,</p> <p><b>TIES</b> will also use a matched case design, where each child enrolled in the program is individually matched with a comparison case based on key characteristics and similar NCANDS and/or AFCARS variables. For example, matching variables for <b>TIES</b> might include maltreatment type, maltreatment risk severity score, and child race/gender/age/ socioeconomic status.</p> <p>Propensity score matching will be used in order to match variables using a composite score generated by an algorithm that minimizes variance across any one matching variable.</p> <p>Finally, <b>TIES</b> will compare outcomes among participating families who live in rural settings and outcomes among families living in urban settings. TDCS will regularly share data on the safety and permanency performance indicators for both the treatment and comparison groups.</p>	<p><b>Goal I:</b> Enhance and expand regional collaborative infrastructure/capacity to meet a broad range of needs for families involved with both substance abuse treatment and the child welfare system.</p> <p><b>Goal II:</b> Establish and implement an evidence-based, trauma-informed, culturally competent, community-based continuum of outreach, treatments, education/counseling, and supportive services for children and families utilizing all components of the <i>Homebuilders</i> model in conjunction with <i>Seeking Safety</i> as appropriate for participants with a history of trauma.</p> <p><b>Goal III:</b> Improve outcomes of children related to safety, permanency, and well-being.</p> <p><b>Goal IV:</b> Increase family stability and improve participant outcomes related to substance abuse and trauma.</p> <p><b>Goal V:</b> Develop and disseminate a thoroughly documented service model for replication across the state and nation.</p> 
<p><b>Target Population</b></p>	<div data-bbox="147 774 422 1107" style="border: 1px solid black; padding: 5px;"> <p><b>TIES: Therapeutic Intervention, Education, &amp; Skills</b></p> <p><u>Target Population</u> Children in/at risk of out-of-home placement due to parent/caretaker substance abuse.</p> <p><u>Geographic Location</u> 8 Middle Tennessee counties: Bedford, Cannon, Coffee, Davidson, Marshall, Maury, Rutherford, Warren</p>  <p><u>Number to be Served</u> 500 Families over 5 years (Year 1: 68, Year 2-5: 108 Annually)</p> </div>		
<p><b>Intervention Strategies</b></p> <ul style="list-style-type: none"> <li>•Motivational Interviewing</li> <li>•Affirmation to enhance self-esteem</li> <li>•Affirmation to enhance self-efficacy</li> <li>•Client self-assessment</li> <li>•Recognizing triggers for drug use</li> <li>•Changing reaction to triggers</li> <li>•Replacing triggers</li> <li>•Relapse prevention</li> <li>•Relapse response</li> <li>•Building a new life</li> </ul>	<div data-bbox="1002 1161 1270 1346" style="border: 1px solid black; padding: 5px;"> <p><b>Contact Information</b></p> <p><b>Edwina Chappell, PhD-</b> e-mail: <a href="mailto:Edwina.Chappell@tn.gov">Edwina.Chappell@tn.gov</a></p> <p><b>Kathryn Mathes, PhD</b> e-mail: <a href="mailto:Kathryn.Mathes@centerstone.org">Kathryn.Mathes@centerstone.org</a></p> </div>		



# Therapeutic Intervention, Education, & Skills

## Davidson Co.



## ABOUT TIES

The TIES program combines the

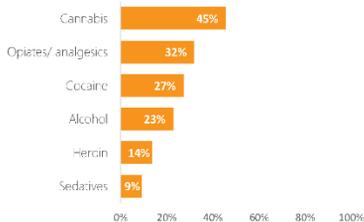
- **Intensive Family Preservation Services (IFPS)** and
- **Seeking Safety** models to prevent out-of-home placement and promote child safety, permanency, and well-being. Families are referred when a child is at **risk of removal due to parental substance abuse**. In-home therapists are available **24 hours a day, seven days a week** for the duration of the **6-8 week** program.

## QUICK SPECS

Families served **22**

Focal children with NAS **18%**

Substance(s) cited on referral  
NOTE: May select more than one



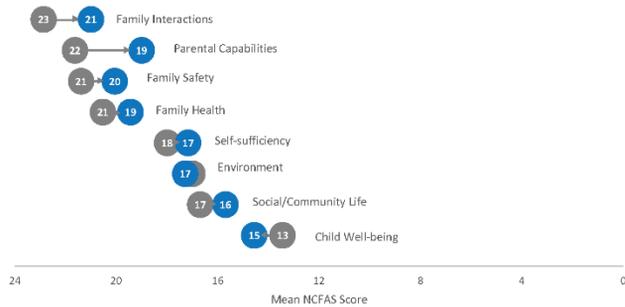
## CONTACT INFORMATION

Edwina Chappell, PhD  
Principal Investigator  
✉ Edwina.chappell@tn.gov

## FAMILY FUNCTIONING

Mean scores are improving from **the beginning of services to the end of services** in all family functioning domains except Environment. (n=17)

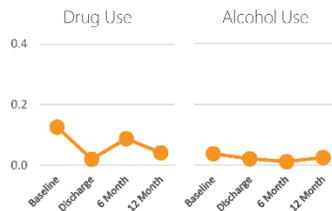
NOTE: Lower scores mean higher functioning and score decreases indicate improvement. Data collected using the North Carolina Family Assessment Scale (NCFAS).



## CAREGIVER SUBSTANCE USE

Reported drug and alcohol use is **decreasing** from the beginning of services to the end of services. Decreases are being retained through 12 months post-services. (n=18)

NOTE: Data collected using the Addiction Severity Index (ASI)



## CHILD SAFETY & PERMANENCY

**94%**

Of TIES focal children have had **no additional substantiated maltreatment** allegations at 12 months post-services. (n=16)

**100%**

Of TIES focal children **remain in their homes** at 12 months post-services. (n=16)





# Therapeutic Intervention, Education, & Skills

## Mid-Cumberland

Counties served: Rutherford



## ABOUT TIES

The TIES program combines the

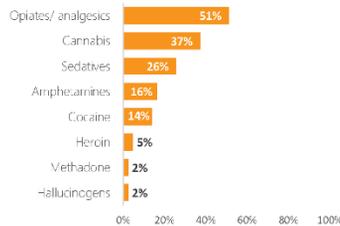
- **Intensive Family Preservation Services (IFPS)** and
- **Seeking Safety** models to prevent out-of-home placement and promote child safety, permanency, and well-being. Families in Rutherford county are referred when a child is at **risk of removal due to parental substance abuse**. In-home therapists are available **24 hours a day, seven days a week** for the duration of the **6-8 week** program.

## QUICK SPECS

Families served **43**

Focal children with NAS **23%**

Substance(s) cited on referral  
NOTE: May select more than one



## CONTACT INFORMATION

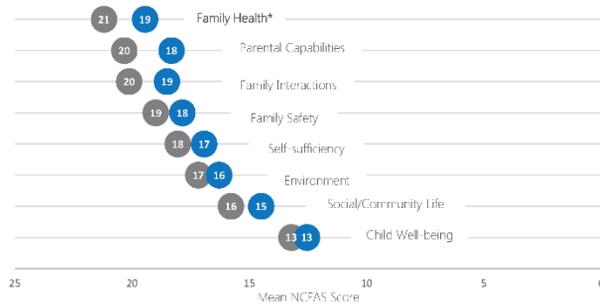
Edwina Chappell, PhD  
Principal Investigator

✉ Edwina.chappell@tn.gov

## FAMILY FUNCTIONING

Mean scores are improving from **the beginning of services to the end of services** in all family functioning domains. Improvements in Family Health are statistically significant\*. (n=31)

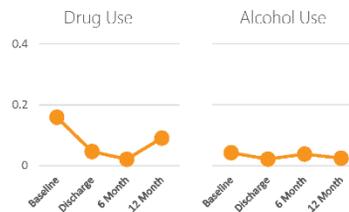
NOTE: Lower scores mean higher functioning and score decreases indicate improvement. Data collected using the North Carolina Family Assessment Scale (NCFAS).



## CAREGIVER SUBSTANCE USE

Reported drug and alcohol use is **decreasing** from the beginning of services to the end of services. Decreases are being retained through 12 months post-services. (n=27)

NOTE: Data collected using the Addiction Severity Index (ASI)



## CHILD SAFETY & PERMANENCY

**86%** Of TIES focal children have had **no additional substantiated maltreatment** allegations at 12 months post-services. (n=22)

**77%** Of TIES focal children have **remained in their homes** at 12 months post-services. (n=22)





# Therapeutic Intervention, Education, & Skills

## South-Central

Counties served: Bedford, Coffee, Marshall



## ABOUT TIES

The TIES program combines the

- **Intensive Family Preservation Services (IFPS)** and
- **Seeking Safety** models

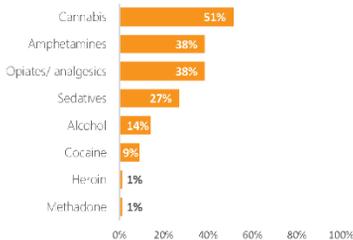
to prevent out-of-home placement and promote child safety, permanency, and well-being. Families in Bedford, Coffee, and Marshall counties are referred when a child is at **risk of removal due to parental substance abuse**. In-home therapists are available **24 hours a day, seven days a week** for the duration of the **6-8 week** program.

## QUICK SPECS

Families served **78**

Focal children with NAS **0%**

Substance(s) cited on referral  
NOTE: May select more than one



## CONTACT INFORMATION

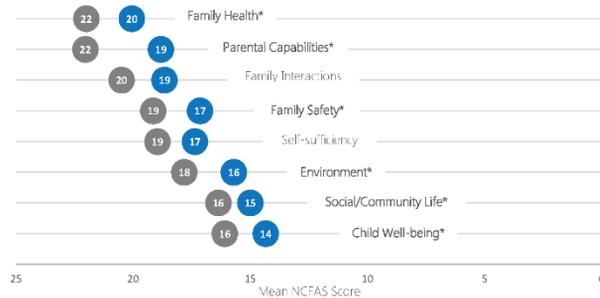
Edwina Chappell, PhD  
Principal Investigator

✉ Edwina.chappell@tn.gov

## FAMILY FUNCTIONING

Mean scores are improving from **the beginning of services to the end of services** in all family functioning domains. Improvements are statistically significant\* in 6 domains. (n=52)

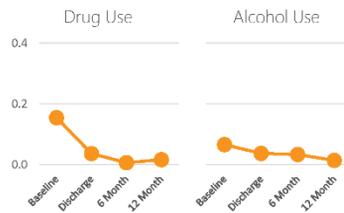
NOTE: Lower scores mean higher functioning and score decreases indicate improvement. Data collected using the North Carolina Family Assessment Scale (NCFAS).



## CAREGIVER SUBSTANCE USE

Reported drug and alcohol use is **decreasing** from the beginning of services to the end of services. Decreases are being retained through 12 months post-services. (n=47)

NOTE: Data collected using the Addiction Severity Index (ASI)



## CHILD SAFETY & PERMANENCY

**95%**  
Of TIES focal children have had **no additional substantiated maltreatment** allegations at 12 months post-services. (n=37)

**86%**  
Of TIES focal children have **remained in their homes** at 12 months post-services. (n=37)





# Therapeutic Intervention, Education, & Skills

## Upper Cumberland

Counties served: Cannon, Warren



## ABOUT TIES

The TIES program combines the

- **Intensive Family Preservation Services (IFPS)** and
- **Seeking Safety** models

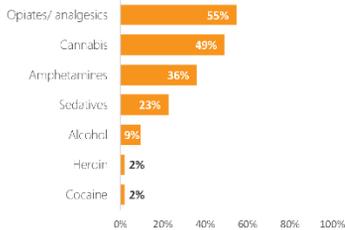
to prevent out-of-home placement and promote child safety, permanency, and well-being. Families in Cannon and Warren counties are referred when a child is at **risk of removal due to parental substance abuse**. In-home therapists are available **24 hours a day, seven days a week** for the duration of the **6-8 week** program.

## QUICK SPECS

Families served **53**

Focal children with NAS **8%**

Substance(s) cited on referral  
NOTE: May select more than one



## CONTACT INFORMATION

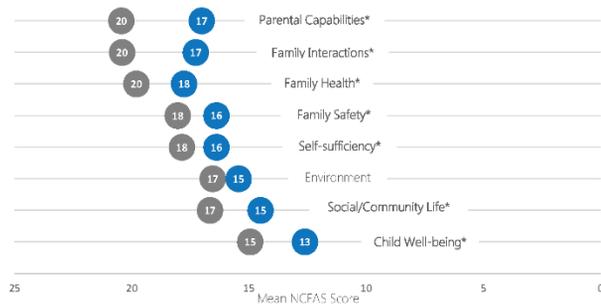
Edwina Chappell, PhD  
Principal Investigator

✉ Edwina.chappell@tn.gov

## FAMILY FUNCTIONING

Mean scores are improving from **the beginning of services to the end of services** in all family functioning domains. Improvements are **statistically significant\*** in 7 domains. (n=45)

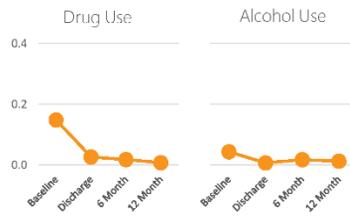
NOTE: Lower scores mean higher functioning and score decreases indicate improvement. Data collected using the North Carolina Family Assessment Scale (NCFAS).



## CAREGIVER SUBSTANCE USE

Reported drug and alcohol use is **decreasing** from the beginning of services to the end of services. Decreases are being retained through 12 months post-services. (n=39)

NOTE: Data collected using the Addiction Severity Index (ASI)



## CHILD SAFETY & PERMANENCY

**86%**

Of TIES focal children have had **no additional substantiated maltreatment** allegations at 12 months post-services. (n=21)

**100%**

Of TIES focal children have **remained in their homes** at 12 months post-services. (n=21)



## Appendix IV. Photos



TIES staff and partners presenting at CWLA 2016.



Cindy Cothran, Tom Murdock, and Kathryn Mathes at grantee meeting.



2013 TIES-sponsored regional conference.



NFPN Executive Director Priscilla Martens; Expert presenter – Mark Washington; and TIES PD/PI.



RCC members participating in regional rural conference.



Expert presentation networking.



One-on-one discussions following expert presentation.



Seeking Safety training.



RCC members participating in regional rural conference.



Evaluation team recognized.



Tennessee Department of Human Services recognized.



Tennessee Bureau of TennCare recognized.



Tennessee Department of Children's Services recognized.