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Executive Summary

About Devereux
Devereux Advanced Behavioral Health is one of the largest and most advanced behavioral healthcare organizations in the country. We are guided by our mission: To change lives by unlocking and nurturing human potential for people living with emotional, behavioral or cognitive differences.

We were founded in 1912 by special education pioneer Helena Devereux, a teacher in a South Philadelphia public school. Today, we are a national nonprofit partner for individuals, families, schools and communities, serving many of the most vulnerable members of our society in the areas of autism, intellectual and developmental disabilities, specialty mental health, and child welfare.

Our Philosophy of Care
The Devereux Advanced Behavioral Health Model of Care™ integrates the latest scientific and medical advancements with time-tested philosophies and compassionate family engagement to provide practical, effective and efficient care, making a meaningful difference in the lives of those we serve, and the world around them.

The guiding principles of our Philosophy of Care include:

- Individualized, evidence-based interventions
- Effective and accountable programs delivered with compassion – Meeting the “Devereux Family Standard”
- System-wide, trauma-informed, data-driven, positive-behavioral approach to care
- Meaningful family engagement and community connection

Community Service Program Effectiveness
Effective and accountable services require that we measure and evaluate everything we do, and that this data is used to continuously improve our services. Being outcome-focused means we strive to make significant and practical gains in the lives of the individuals we serve every day. The end result of being value-driven and outcome-focused is a highly effective, efficient and practical approach to service delivery.

Similar to other Devereux programs, our Community Services programs within the behavioral health continuum include: clinical models that emphasize using comprehensive assessment data for each client to develop an individualized resiliency plan reflecting current evidence-based practices for children and adolescents with mental health concerns.

The following information provides a summary of outcomes related to the clinical effectiveness of Devereux Pennsylvania – Children’s Behavioral Health Services center’s Community Services programs. These outcomes are based on the results of measures and assessments representing best practices in the field and are utilized to assess not only the current effectiveness of programs and positive outcomes to the families we serve, but also to provide us with feedback regarding areas for further refinement and enhancement.
General Outpatient Program

Cognitive behavioral therapy (CBT) and behavioral therapy (BT) are the primary forms of intervention in general outpatient services, as they are empirically validated treatments for children and adolescents across a host of mental health issues (e.g., Kendall and Braswell, 1993; DuPaul and Eckert, 1997).

Outpatient program outcomes were collected in order to examine the effectiveness of therapeutic intervention in decreasing symptomology based on ratings on the Youth-Self Report (YSR) and Child Behavior Checklist (CBCL) (Achenbach and Rescorla, 2001; 2007; Achenbach and Edelbrock, 1983).

Program data for 168 clients on the CBCL and 144 clients on the YSR were analyzed utilizing an analysis of covariance (to account for differences in length of stay) to evaluate symptoms after six months in treatment. Total problems as reported by clients and parents both significantly decreased after six months of outpatient treatment (p< .05). In addition, effect sizes indicated that outpatient treatment accounted for 59 percent of the overall change in total problems on the CBC and 48 percent of overall change in total problems on the YSR, respectively.

Parent Child Interaction Therapy

Parent Child Interaction Therapy (PCIT) is an evidence-based behavioral parent training program developed by Dr. Sheila Eyberg that involves working with parents and their young children (ages two-and-a-half to seven). In this approach, the therapist coaches parents during real-time interactions with their child.

PCIT data were analyzed across a small sample (n=34) to examine disruptive behaviors across children in the program as measured on scores on the Eyberg Child Behavior Inventory (ECBI). Results from an analysis of covariance (to account for differences in number of sessions) indicated a significant difference between scores at admission and the last session. Specifically, mean t-scores on the ECBI decreased from 67.06 (clinical range) during admission to 50.9 (subclinical range) at discharge. An effect size was calculated indicating that 91 percent of the change on ECBI scores can be attributed to PCIT treatment.

Trauma-Focused CBT

Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) is a components-based hybrid approach that integrates trauma-sensitive interventions, cognitive-behavioral principles, as well as aspects of attachment, and developmental neurobiology.

TF-CBT outcome data were analyzed based on client self-report scores on the Childhood PTSD Symptom Scale (CPSS) developed by Foa et al., (2001) for a total of 47 clients. Data analysis indicated a significant decrease in CPSS scores after 90 days and then again at 180 days of treatment when compared to baseline (p < .05). Mean scores on the CPSS decreased from 23.52 at baseline to 19.78 after 90 days in treatment and additionally to a mean of 18.09 after 180 days in treatment. Parent reported scores on the CPSS for 29 clients were also found to decrease significantly (p < .05) from baseline (m= 21.05) to 90 days of treatment (m=19.06)
**Dialectical Behavior Therapy**

Dialectical Behavioral Therapy (DBT) is an evidence-based program for adults with borderline personality disorder Linehan (1993). It is offered through the outpatient program as a promising practice for adolescents with high intensity behavioral issues. DBT is a behavior therapy approach that effectively teaches adolescents how to better manage powerful emotions, urges and thoughts that seem to be difficult for the teen to control under their regular ways of coping and dealing with day-to-day life stressors.

Program outcomes were collected to examine the effectiveness of therapeutic intervention in decreasing symptomology based on ratings on the Youth-Self Report (YSR) (Achenbach & Rescorla, 2001; 2007; Achenbach and Edelbrock, 198). In addition, level of risk was assessed over time based on the Devereux Suicide Risk Assessment (DSRS).

Preliminary support and implementation of DBT programming across our outpatient program has yielded significant treatment gains for the children and adolescents we have served over the last several years through spring of 2018.

Preliminary outcome data indicated both a decrease in risk level on the Devereux Suicide Risk Assessment (DSRA), as well as internalizing and total problems on the Youth Self-Report (YSR) (Achenbach and Rescorla, 2001; 2007; Achenbach and Edelbrock, 198). Average ratings for internalizing problems decreased from, M = 66.9 at admission to 63.3 at 12 months, while average Total Problems decreased from, M = 69.7 at admission to 63.5 at 12 months. In addition, frequencies of high and moderate ratings on the DSRA of risk for suicide among clients at admission decreased from 8 (high intensity) and 5 (moderate intensity) to ratings of 2 and 1 after 12 months in the program.

**Family-based Mental Health Services**

Family-based Mental Health Services (FBMHS) is an empirically validated approach to family therapy. The therapeutic intervention used for this treatment modality is Eco-Systemic Structural Family Therapy (ESFT). This model was developed from the work of Salvador Minuchin.

The clinical effectiveness of FBMHS is formally assessed through selected domains from the Family Assessment of Functioning (FAF). A modified FAF (MFAF) was designed by the Philadelphia Child and Family therapy center in 2004. On the MFAF scores of 2.5 and below are considered strengths; ratings of 3.0 and 3.5 are considered moderate problems and ratings of 4.0 and higher are considered major problems.

FBS data was aggregated to compare MFAF ratings between admission and discharge across three domains. The analysis indicated a decrease in moderate family problems in all three areas. These areas included: 1) the caregiver-child relationship (decreased from 58 percent to 46 percent of families); 2) the co-caregiver relationship (decreased from 52 percent to 20 percent of families); and 3) executive (parenting) skills (decreased from 53 percent to 40 percent of families).

In addition, a decrease was also observed in major family problems for all three MFAF domains among Devereux families. These included the caregiver-child relationship (decreased from
17 percent to 3 percent of families), executive (parenting) skills (decreased from 15 percent to 6 percent of families) and the co-caregiver relationship (decreased from 16 percent to 12 percent of families).

Family Strengths in both the caregiver-child relationship (increased from 25 percent to 51 percent of families), co-caregiver relationship (increased from 32 percent to 69 percent of families) and parent executive skills (increased from 62 percent to 84 percent of families) also improved from admission to discharge.

**Behavioral Health Rehabilitation Services (BHRS)**

The clinical model for Behavioral Health Rehabilitation Services (BHRS) consists of a holistic, strengths-based approach paired with positive behavior support and cognitive behavioral and behavioral therapies. Positive Behavior Support is a set of research-based strategies based on the principles of Applied Behavior Analysis (ABA) used to increase quality of life and decrease problem behavior by teaching new skills and making changes in a person’s environment.

The work of the behavioral specialist consultant (BSC) focuses on behavioral consultation, within a framework of Positive Behavioral Support, to be delivered in home, community and school environments. The BSC conducts the initial behavioral assessment and creates a Positive Behavioral Support plan outlining the intervention. The BSC then works with the therapeutic staff support (TSS) to transfer intervention skills to school and caregivers in the natural environment. Families in BHRS may also receive therapeutic interventions directly in the home from a mobile therapist (MT). Cognitive Behavioral Therapy (CBT) and Behavioral Therapy (BT) are the primary forms of intervention utilized by the MT.

Effectiveness of BHRS is generally monitored through the use of both external and internal measures at both the individual and program-wide level.

**Clinical Quality Outcomes**

To increase clinical standards, it was decided to shift our lead clinicians from a contractor model to an employee model. This shift cost the program an additional 56 percent per lead clinician, but increased overall clinical performance. To help determine clinical quality, lead clinicians were scored in three separate clinical competency areas.

Reviews were conducted using a clinical treatment plan review checklist to help determine competency of writing a comprehensive and individualized Behavior Intervention Plan. Between March 2016 and January 2018, the scores improved significantly, showing an increased overall average treatment plan score of 15 percent.

Clinicians were also assessed using a Progress Note Review Checklist to determine their ability to include all necessary clinical components in their documented progress notes. Between July 2016 to January 2018, scores showed significant improvement, including an increased overall average of 22 percent.

In addition, clinical packet checklists were used to help ensure essential clinical components were being included in re-authorization packets prior to submission to the MCO. Between March
2016 to January 2018, scores greatly improved, showing an increased overall average of 37 percent.

Overall, clinical standards within the program (since the shift from the contractor model to an employee model) have shown great improvement across the board.

**BHRS Clinical Outcomes**

BHRS program outcomes are typically collected to examine the clinical effectiveness of behavioral and therapeutic intervention in decreasing symptomology based on ratings on the Child Behavior Checklist (CBCL). It is administered minimally at admissions, six months and 12 months (Achenbach and Rescorla, 2001; 2007; Achenbach and Edelbrock, 1983). The subscales on the CBCL that were analyzed included the Internalizing scale (e.g., symptoms of anxiety, depression), externalizing scale (e.g., symptoms related to aggression, inattention), and the total problems scale (externalizing and internalizing combined).

Program data for 66 clients on the CBCL were analyzed using an ANCOVA (to account for differences in length of stay) to evaluate symptoms after six months in treatment. Total problems and externalizing problems, as reported by parents, significantly decreased after six months of BHRS treatment ($p< .05$). In addition, effect sizes indicated that BHRS treatment accounted for 89 percent of the overall change in total problems, and 72 percent of overall change in externalizing problems on the CBCL. In addition, program data for 35 clients were analyzed using an ANCOVA to evaluate symptoms after 12 months in treatment. Total problems and externalizing problems, as reported by parents, also significantly decreased after 12 months of BHRS treatment ($p< .05$). Effect sizes indicated that treatment accounted for 93 percent of the overall change in total problems on the CBCL and 90 percent of overall change in externalizing problems on the CBCL.

**Monitoring of Discharge Placement and Length of Stay**

Discharge data collected from 2015 to 2017 indicated that 76 percent of all 190 individuals that left BHRS for a change in service level were discharged to either outpatient or no service at all. In addition, for all discharges that went to a higher level of care (HLOC), only 2 percent were to residential treatment.

Length of stay data from 2015 to the first half of 2017 has shown a vast decrease over time for BHRS cases that step down to outpatient or no services. For example, the average length of stay for cases in the program decreased by 50 percent for step down cases.

**Intensive Family Coaching (IFC)**

Intensive Family Coaching uses the basic structure of PCIT and works to help families develop improved and much more effective family interactions using intensive Parent Management practices. Parents learn to interact with their children using Behavioral Descriptions, Verbal Reflections, and most importantly Labeled Praise along with Balanced Emotional Responses and Planned Ignoring/Selective Attention.
Intensive Family Coaching provides intensive (four to six hours per week) training and support to families in their homes. This activity reduces the amount of behavioral generalization that needs to occur; it also includes all family members (e.g., all parental figures, siblings).

Service is delivered conjointly by a mobile therapist (MT) and therapeutic staff support, (TSS) and usually lasts between four to six months.

IFC data were analyzed across a small sample (n=6) to examine disruptive behaviors across children in the program as measured on scores on the Eyberg Child Behavior Inventory (ECBI). Preliminary data indicated that each ECBI scores for all five families who completed the services were in the subclinical range at discharge (t<65). Overall, mean t-scores on the ECBI decreased from 66.02 (clinical range) during admission to 53.8 (subclinical range) at discharge.

**Treatment Foster Care (TFC)**

The Philadelphia Foster Care program supports youth, from infancy to 21 years of age, who have been removed from their biological families due to abuse or neglect, and who have been diagnosed with emotional, behavioral and/or cognitive differences. Foster parents are a critical part of each foster child’s “team” and are trained to: 1) provide a nurturing, caring and structured environment within their homes, and 2) care and support children and adolescents whom may have challenging behaviors or special needs.

Foster parent/provider training includes an evidence-based intervention program to support youth in foster care. The program, called Together Facing the Challenge (TFTC), focuses primarily on effective intervention skills, and offers some documentation and structure for program staff to assist foster parents’ with using skills in the home (Murray, Dorsey, Farmer, Burns and Ballentine, 2015). TFTC is also one of two evidence-based TFC parent training programs, and has been shown to significantly reduce foster youth behaviors and symptoms compared to typical foster care programs (Farmer et al., 2010).

A grant-funded project recently concluded within the Philadelphia foster care program to both implement and evaluate the efficacy of the TFTC model. Specifically, TFC parents working for Devereux Advanced Behavioral Health, a national provider of behavioral health services, were trained in the TFTC model, and trends in parent and child outcomes were examined over a one-year period.

Measures in the project included positive and problem behaviors for children as measured by the Parent Daily Report (PDR; Murray et al., 2015), and the Strengths and Difficulties Questionnaire (SDQ; Goodman, 2005). Both of these measures are parent reports of child behavior.

Three domains of foster parent outcomes were examined: (a) satisfaction, (b) knowledge and (c) stress. Parent satisfaction was measured using the Behavior Intervention Rating Scale (BIRS; Elliott and Treuting, 1991), and the TFTC Evaluation Form that accompanies the program. Knowledge of TFTC skills was examined using a study-developed multiple choice measure of these skills from TFTC training sessions. Parent stress was assessed using a self-rating scale, the Parenting Stress Index – 4th Edition, Short Form (PSI-4-SF; Abidin, 2014).
Notable findings from the project included: a decrease in parents’ ratings of child negative behaviors on the PDR from pre-training to 12-months after the training. On the SDQ, negative behaviors reported significantly decreased only for some parents: those who had been foster parents for fewer months, and those who had more foster children in their homes. Parents also rated the training to be effective on the training evaluation form. Their knowledge of the skills presented during the TFTC training significantly increased from pre-training to post-training ($t(46) = -1.88, p = .034$).

This study provided an important replication of Farmer and colleagues’ (2010) findings that TFTC significantly reduces problem behaviors among TFC youth. The present findings illustrate the effectiveness and importance of the TFTC program in urban populations, and particularly with our Philadelphia program. The program is currently training additional cohorts of foster parents in the TFTC model and focusing on consistent deployment of coaches to support model implementation in our foster parents’ homes.

In 2018, the Devereux Pennsylvania Children’s Intellectual and Developmental Disability Services (CIDDS) – Community Services of Philadelphia Foster Care Program was certified in the Together Facing the Challenge evidence-based model for therapeutic foster care. Together Facing the Challenge (TFTC) certification allows Devereux Pennsylvania CIDDS Community Services of Philadelphia to provide independent TFTC training and consultation to its therapeutic foster parents.

**Blended Case Management Services**

Blended Case Management (BCM) Services are designed to act as the linkage and referral source to maintain optimal family functioning in the community. The primary focus of the case manager is to assist the child/family in accessing needed services and resources, with the ultimate goal of providing transfer of skills in order for the individual/parent to become self-sufficient in accessing resources and services independently.

The BCM leadership is currently working to develop a measure that is sensitive in detecting an increase in the resource access skills of families after completing CM services. Previous measures have not been informative in measuring this change. Further refinement is needed to better operationalize the positive outcomes to be gained from BCM services. Based on a preliminary analysis, relevant items and areas where family increased skills and supports included, child community engagement, communication of mental health team members, accessing medical and dental supports, housing supports, social activities and communication from the child’s school concerning IEP services.

**Implementation of Family-based Mental Health Services in Delaware**

Partnering with the state of Delaware, Devereux Community Services began implementing the FBMHS program. Working in collaboration with the state, outcomes were specifically developed to highlight the mental health needs of families being serviced. During the first year of implementation, Devereux FBMHS teams worked with families to divert 108 crisis situations from inpatient. In addition, decreasing trends were observed for 69 families on high-risk indicators, including inpatient hospitalization, self-injury, aggression and suicidal ideation. The
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majority of cases engaged in treatment (12 out of 16) were also discharged to a lower level of care.

Implementation of Family-based Mental Health Services in Philadelphia

Partnersing with Community Behavioral Health (CBH), Devereux began implementing a FBMHS program. Initial discussions with CBH focused on creating a pilot family-based team that would work with individuals placed in residential treatment, allowing for a 90-day overlap between services. The goal of the pilot team would be to reduce length of stay in residential treatment. The treatment would begin three months prior to discharge and continue another five months post discharge. In the first year of implementation, Devereux FBMHS successfully discharged 79 percent of its families to a lower level of care. As the result of positive outcomes, CBH approved an additional four family-based teams.

The clinical effectiveness of FBMHS is formally assessed through selected domains from the Family Assessment of Functioning (FAF). A modified FAF (MFAF) was designed by the Philadelphia Child and Family therapy center in 2004. On the MFAF, scores of 2.5 and below are considered strengths; ratings of 3.0 and 3.5 are considered moderate problems and ratings of 4.0 and higher are considered major problems.

Preliminary FBS data for a small number of cases was aggregated to compare MFAF ratings between admission and discharge across the three domains. The analysis indicated a decrease in moderate family problems in the following areas: the caregiver-child relationship (decreased from 62 percent to 39 percent of families) and executive (parenting) skills (decreased from 30 percent to 21 percent of families). A decrease was also observed in major family problems for executive (parenting) skills (decreased from 16 percent to 7 percent of families) among Devereux families.

Finally, Family Strengths in both the caregiver-child relationship (increased from 33 percent to 51 percent of families) and parent executive skills (increased from 74 percent to 89 percent of families) also improved from admission to discharge.

Summary

Overall, Devereux Pennsylvania – Children’s Behavioral Health Services center’s Community Services programs have made a positive impact on the children and families we serve every day.

A focus on providing individualized services, utilizing empirically validated interventions and data-driven outcomes continue to be the cornerstones with which we provide effective behavioral health services to families within our communities.
References


