

Quarterly Evaluation Report

July 1, 2007 – September 30, 2007

Year 5, Quarter 4

Community Solutions

Fort Worth, Texas

J. Sean Allen, Ph.D.
Camille Patterson, Ph.D.
Elizabeth Ann Rose, M.S.S.W., LMSW
Barbara Perry, B.A.
Andrea Smith, B.A.
Kathryn Brown, B.A.

Research Division
MHMR of Tarrant County
3840 Hulen Tower North
Fort Worth, TX 76107
(817) 569-4485

SAMHSA/CMHS Grant # SM54497-05

Table of Contents

Introduction.....	3
Process Evaluation	3
Engagement Rate	3
Timeliness of Service.....	4
Case Closures	5
Family Satisfaction.....	5
Evaluation Interviews.....	5
Demographics of Children and Families Served	6
Outcomes	8
Strengths.....	8
Depression and Anxiety	9
Problem Behaviors	10
Functional Impairment	11
Family Life.....	14
Summary	15

List of Tables

Table 1. Engagement Rate by Cohort	3
Table 2. Engagement Rate by Agency	4
Table 3. Engagement Rate by Facilitator	4
Table 4. Timeliness of Service.....	5
Table 5. Reasons for Closure	5
Table 6. Follow-Up Rates	6
Table 7. Demographics	7
Table 8. Anxiety.....	10
Table 9. Global Impairment.....	12
Table 10. Impairment by Domain	13
Table 11. Family Life	14

List of Figures

Figure 1. Improvement in Child Strengths by Cohort.....	9
Figure 2. Change in Behavioral Problems	11
Figure 3. Functional Impairment	13

List of Appendices

Appendix A. Behavioral/Emotional Strengths.....	16
Caregiver Ratings.....	16
Youth Self-Ratings.....	17
Appendix B. Depression	18
Appendix C. Behavioral/Emotional Problems.....	19
Narrow-Band Scales.....	19
Broad-Band Scales	20
Appendix D. Caregiver Strain.....	21
Appendix E. Satisfaction	22

Introduction

The goal of Community Solutions is to create a sustainable, collaborative System of Care (SOC) in Fort Worth, Texas, for families with children impacted by serious emotional disturbance (SED). The City of Fort Worth Public Health Department is the lead agency, collaborating with the Fort Worth Independent School District (FWISD) and the member agencies and individuals of the Mental Health Connection of Tarrant County. Partnering agencies include All Church Home, Catholic Charities, Lena Pope Home, Mental Health Mental Retardation (MHMR) of Tarrant County, Santa Fe Adolescent Services, and the Parenting Center. The Research Division of Mental Health Mental Retardation of Tarrant County provides evaluation for the project.

Children are referred to Community Solutions primarily through one of four Family Resource Centers (FRC) housed on Fort Worth Independent School District (FWISD) campuses. Site coordinators located at each of the FRCs and the clinical director (Vicki Warren) screen children for eligibility and assign the cases to facilitators. The facilitators utilize the wraparound approach, which consists of working with families to identify strengths and needs; recruiting a child and family team; and developing an individualized service plan, accessing a network of community resources.

Community Solutions is funded by a 6-year federal grant from the Substance Abuse and Mental Health Services Administration (SAMHSA) with local matching funds. The program has recently completed its fifth year of funding. This report presents cumulative data collected through the fourth quarter of the program's fifth year (through September 2007). The report examines process and outcome data across 4 cohorts of children and families receiving wraparound in years 2-5 of the program. (No children were enrolled during the first year of the program which was devoted to planning.)

Process Evaluation

Engagement Rate. In all, 452 families were referred to Community Solutions. Of these, 317 (or 70%) went on to engage in services. Table 1 shows that the rates of family engagement for each of the 4 cohorts of families. During the first two years of services (Cohorts 1 and 2), about 8 in 10 families engaged in wraparound. The engagement rate fell to about 6 in 10 during the last two years (Cohorts 3 and 4).

Table 1. Engagement Rate by Cohort

Cohort	Cases Referred	Cases Engaged	Percentage Engaged
Cohort 1	83	66	80%
Cohort 2	135	109	81%
Cohort 3	115	72	63%
Cohort 4	119	69	58%
Total	452	316	70%

Agencies providing wraparound differed in their rates of family engagement. Lena Pope Home and MHMR had the highest rates, with about 3 in 4 families engaging in wraparound. Table 2 shows the engagement rates for each agency. (Because All Church Home and The Bridge merged, engagement rates are shown for each agency separately as well as a combined rate.) It is important to note that rate of engagement in wraparound is not necessarily related to the quality of service delivered by each agency.

Table 2. Engagement Rate by Agency¹

Agency	Cases Referred	Cases Engaged	Percentage Engaged
Lena Pope Home	99	75	76%
MHMR of Tarrant County	44	33	75%
All Church Home (ACH)	83	59	71%
Catholic Charities	82	56	68%
Santa Fe	52	35	67%
Parenting Center	39	25	64%
The Bridge	53	34	64%
ACH/The Bridge Combined	136	93	68%
Total	452	317	70%

Individual facilitators varied considerably in their family engagement rates, as shown in Table 3. Facilitators were excluded from this analysis if they had been assigned less than 5 cases; eight facilitators (e.g., new hires) were excluded for this reason. Engagement rates for individual facilitators ranged from 43% (6 out of 14 families engaged) to 100% (13 out of 13 families engaged). The maximum number of cases referred to a facilitator was 27; two had this many.

Table 3. Engagement Rate by Facilitator

Engagement Rate	Number of Facilitators
100%	4
90-99%	1
80-89%	7
70-79%	7
60-69%	7
50-59%	3
40-49%	2

Timeliness of Service. Table 4 shows data on the timeliness of service during each year of the program. Across all 4 years, the length of time between referral and first service has remained consistent at about 2 weeks for a typical (median) family. It takes typically 8 days from the time a case is assigned to a facilitator for the first service to be delivered.

¹ In the analyses shown in Tables 2 and 3, cases were attributed to agencies based on the identity of the facilitator with the first contact documented on the Community Solutions service log.

The length of service (i.e., the time a case was open) appears to have declined over successive years of the program. The median length of service was 382 days for the first cohort of families; 364.5 days for the second cohort, and 328 days for the third cohort. Length of service was not calculated for the fourth cohort because most of those cases (64%) currently remain open. Considering all closed cases, the median length of service was 340 days.

Table 4. Timeliness of Service

Cohort	Median Days from Referral to 1st Service	Median Days from Case Assignment to 1st Service	Median Length of Service (Days)
Cohort 1	12.5	6.0	382.0
Cohort 2	14.0	9.0	364.5
Cohort 3	14.0	8.0	328.0
Cohort 4	14.0	10.0	
Total	14.0	8.0	340.0

Case Closures. Table 5 breaks down the reasons for case closure. The number of families reported as graduating (i.e., achieving or on course to achieving the goals in their service plan) increased over the course of the program, from 50% for Cohort 1 to 65% for Cohort 3.

Table 5. Reasons for Closure

Cohort	Closed Cases	Graduated	Family Withdrew	Family Moved	Other
Cohort 1	66	50%	24%	8%	18%
Cohort 2	108	62%	16%	8%	14%
Cohort 3	58	65%	23%	5%	7%
Total	232	59%	20%	7%	13%

Source: Community Solutions Case Closure Form

Family Satisfaction. Appendix E gives family satisfaction scores after 6 and 12 months of service. On a scale of 1 to 5, average satisfaction scores were typically very high, between 4 and 5. The only area in which average satisfaction scores were lower than 4 was in satisfaction with children's outcomes, which received an average score of 3.5 at 6 months and 3.6 at 12 months. Families in Cohort 3 reported significantly higher satisfaction scores at 12 months compared to 6 months, indicating that they were increasingly satisfied with the program over time.

Evaluation Interviews. Shortly after intake into Community Solutions, evaluation staff visited the homes of participating families and, after obtaining consent, administered a series of questionnaires to caregivers (and to children 11 years of age or older). The specific battery of questionnaires administered differed depending on the year the family enrolled in Community Solutions. Families in Cohort 1 are part of a *local evaluation*, which uses a set of questionnaires developed prior to the finalization of the national-level protocols. Those in all other cohorts are

part of the *national evaluation* longitudinal study. Certain questionnaires were used in the local evaluation, the national evaluation, or both. As a result, sample sizes vary from analysis to analysis as reported in the Outcomes section.

Evaluators met again with caregivers for follow-up interviews every six months in order to track the progress of the children and families over time. Table 6 shows the completion rates for the follow-up interviews, combining data for the local and national studies. Follow-up rates are expressed as the number of interviews completed out of the total number that were possible. Interviews were considered possible if a 12-week interview window was open, calculated at 6-month anniversaries from the date of the intake interview. Only a small number of follow-ups with caregivers were missed (because caregivers were unable or unwilling to participate), yielding follow-up rates 90% or better, well above the national benchmark of 80%.

Table 6. Follow-Up Rates

Timeframe	Caregiver Interviews		Youth Interviews	
	Completed / Possible	Rate	Completed / Possible	Rate
6 months	291 / 296	98%	168 / 177	95%
12 months	241 / 255	95%	141 / 164	86%
18 months	200 / 213	94%	129 / 150	86%
24 months	157 / 175	90%	117 / 137	85%
30 months	124 / 137	91%	93 / 110	85%
36 months	79 / 88	90%	58 / 72	81%
All follow-ups	1092 / 1164	94%	706 / 810	87%

In addition to the caregiver interviews, evaluators also interviewed the child in cases where the child was 11 or older and was capable of providing valid responses in the judgment of the evaluator. In a few early cases, children age 10 were interviewed. The overall follow-up rate for youth interviews was 87%.

Demographics of Children and Families Served

Three main racial/ethnic groups have been served by Community Solutions: non-Hispanic Whites (42%), African Americans (35%), and Hispanics (26%). As shown in Table 7, the racial/ethnic make-up of Cohort 1 differs from the other cohorts, with a smaller percentage of African Americans (24%).

Consistent with other systems of care, about three-quarters of enrolled children are boys.

At least one half of the families are single mother households. In contrast, just 27% of children come from households with 2 biological parents. However, Cohort 3 stands out with an unusually high percentage of children living with two biological parents (45%). (See Table 7.)

With respect to annual household income, about 1 in 3 children came from households making less than \$10,000 per year overall. Families served in earlier cohorts were poorer than children served in later cohorts, with the percentage earning less than \$10,000 declining during each successive cohort (44%, 34%, 27%, and 23%, respectively).

Table 7. Demographics

	Cohort 1 (N = 66)		Cohort 2 (N = 109)		Cohort 3 (N = 73)		Cohort 4 (N = 69)		Total (N = 317)	
	N	%	N	%	N	%	N	%	N	%
Race/Ethnicity										
White, non-Hispanic	34	52%	42	39%	28	38%	30	43%	134	42%
African American	16	24%	43	39%	29	40%	23	33%	111	35%
Hispanic or Latino	19	29%	26	24%	18	25%	18	26%	81	26%
American Indian	4	6%	3	3%	0	0%	1	1%	8	3%
Asian	1	2%	0	0%	0	0%	0	0%	1	< 1%
Multi-Racial	7	11%	5	5%	3	4%	2	3%	17	5%
Gender										
Male	49	74%	83	76%	58	79%	49	71%	239	75%
Female	17	26%	26	24%	15	21%	20	29%	78	25%
Annual Household Income										
Less than \$5,000	25	38%	21	20%	7	10%	11	16%	64	20%
\$5,000 - \$9,999	4	6%	15	14%	12	17%	5	7%	36	11%
\$10,000 - \$14,999	7	11%	16	15%	11	16%	4	6%	38	12%
\$15,000 - \$19,999	5	8%	10	10%	11	16%	13	19%	39	12%
\$20,000 - \$24,999	6	9%	12	11%	9	13%	10	15%	37	12%
\$25,000 - \$34,999	11	17%	12	11%	8	11%	11	16%	42	13%
\$35,000 - \$49,999	4	6%	11	11%	9	13%	9	13%	33	10%
\$50,000 - \$74,999	4	6%	8	8%	4	6%	3	4%	19	6%
\$75,000 - \$99,999	0	0%	0	0%	0	0%	2	3%	2	1%
\$100,000 and over	0	0%	0	0%	0	0%	0	0%	0	0%
No response/Missing data	0	0%	4	4%	2	3%	1	1%	7	2%
Legal Custodian of Child										
Two biological parents (or one biol. and one step/adoptive)	16	24%	18	17%	33	45%	18	27%	85	27%
Biological mother only	32	49%	63	58%	29	40%	36	53%	160	50%
Biological father only	1	2%	5	5%	1	1%	1	2%	8	3%
Adoptive parent(s)	5	8%	3	3%	2	3%	1	2%	11	3%
Sibling(s)	0	0%	0	0%	0	0%	0	0%	0	0%
Aunt and/or uncle	3	5%	3	3%	1	1%	4	6%	11	3%
Grandparent(s)	7	11%	8	7%	6	8%	5	7%	26	8%
Friend (adult friend)	1	2%	0	0%	0	0%	0	0%	1	<1%
Ward of the State	0	0%	1	1%	0	0%	0	0%	1	<1%
Other	1	2%	7	7%	1	1%	3	4%	12	4%
No response/Missing data	0	0%	1	1%	0	0%	1	1%	2	1%

Source: Enrollment and Demographic Information Form (EDIF), Descriptive Information Questionnaire (DIQ), Caregiver Information Questionnaire (CIQ-I)
(Because children may have more than one diagnosis, total may sum to more than 100%.)

Outcomes

Strengths. As a strengths-based intervention, wraparound builds on individual children's personal strengths. As such, it is expected that children's strengths will improve over time.

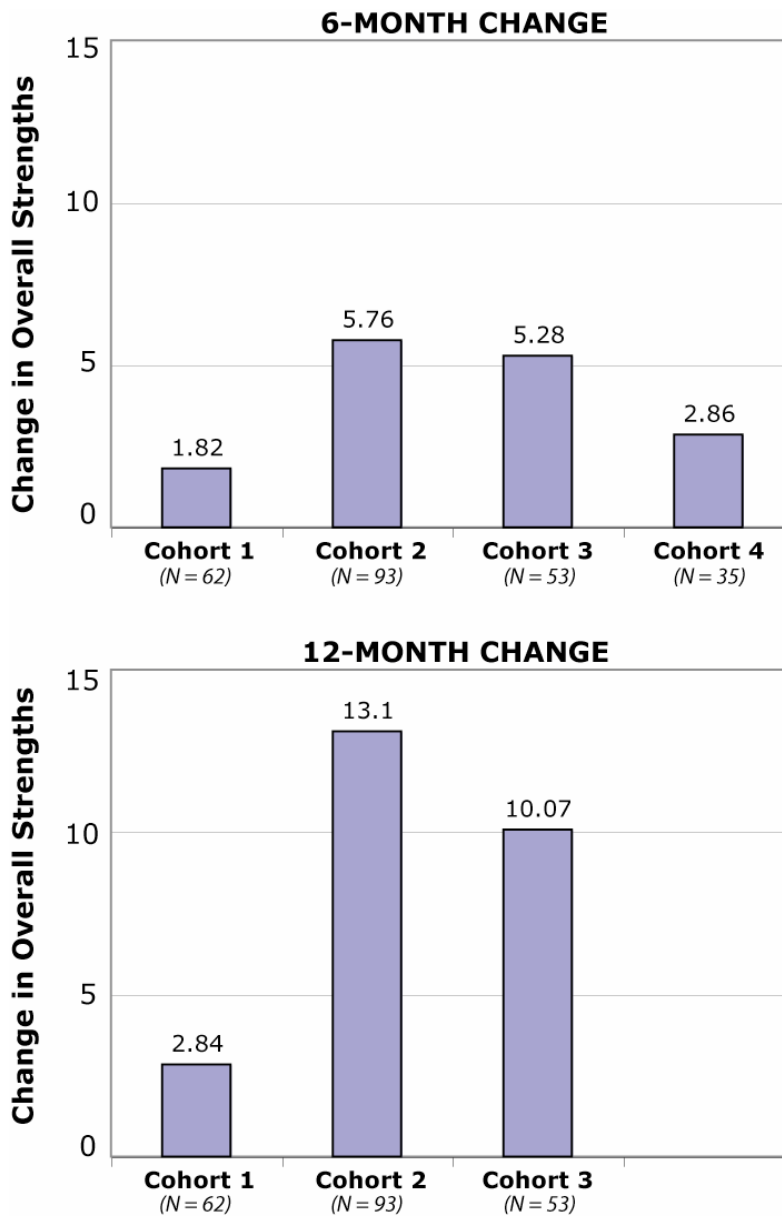
Child strengths were rated by caregivers and self-rated by youths using the Behavioral and Emotional Rating Scale (BERS). Higher scores are better, indicating greater personal strengths. Scores are based on normative comparison to other children of the same age and gender across the nation. For the 5 subscales (interpersonal strengths, family involvement, intrapersonal strengths, school functioning, and affective strengths), the average normed score (50th percentile) is 10 with a standard deviation of 3. Scores lower than 7 are considered to be within the clinical range. For the overall Strength Index scale, the average is 100 with a standard deviation of 15. Scores lower than 80 are considered to be within the clinical range.

Detailed strengths data are provided in Appendix A. The appendix shows, for each cohort, average (mean) strength scores in each domain at intake, 6 months, and 12 months, along with sample standard deviations. Change scores (i.e., the amount and direction of change over 6 and 12 months) are also provided, along with results of statistical significance tests. (The 12-month data for Cohort 4 is not reported because insufficient data have been collected.)

The appendix shows strength scores rated by caregivers in one table and scores self-rated by youths in a separate table on the following page. The data from the caregivers tell a different story from the youth data. Caregivers rated their children's strengths poorly, within the clinical range of severity on average; but youths rated their own strengths much higher (though still below average). Over time caregivers reported significant improvements in their children's strengths, whereas youths self-reported little change over time.

Caregiver reports of improved strengths varied from cohort to cohort. Figure 1 illustrates this difference in outcomes across program years. The figure shows 6- and 12-month change scores in the overall Strength Index. Cohorts 2 and 3 showed statistically significant gains in strengths both at 6 months and at 12 months, whereas Cohorts 1 and 4 showed more modest gains that were not statistically significant. (Note that 12-month data are not available for Cohort 4.) For Cohorts 2 and 3, the average improvement in strengths was large enough to be considered clinically significant; a change of 7.5 points or more constitutes a half-standard deviation in the population. The average 12-month change for Cohort 2 approached a full standard deviation.

Figure 1. Improvement in Child Strengths by Cohort
(as reported by caregivers)



Source: Behavioral and Emotional Rating Scale (BERS-2C)

Depression and Anxiety. Youth self-reported depression and anxiety using standardized instruments (Reynolds Adolescent Depression Scale and the Revised Children's Manifest Anxiety Scale). These scales are standardized with a mean of 50 and a standard deviation of 10. Lower scores are better. (These data are not available for Cohort 1.)

Detailed data on depression are provided in Appendix B, broken down into Overall Depression, Dysphoria (sad mood), Anhedonia (lack of enjoyment), Negative Self-Evaluation, and Somatic Complaints (sleep problems). For Community Solutions children as a whole, depression scores were slightly elevated but not abnormally high. Average scores were within a half standard deviation of the mean (55 or less), except for Negative Self Evaluation (with an average score of 56). Although depression was not a major problem on average, depression was a major problem for 1 in 4 children who were in the clinical range of severity for depression (scores higher than 60). The rate of clinical depression was 9% higher for girls than for boys.

In terms of outcomes, there were statistically significant improvements in depression over 12 months in all areas except Anhedonia, which worsened slightly. The 12-month scores for Dysphoria were slightly better than the national average (48). Cohort 2 stands out with clinically significant gains in Negative Self Evaluation (an improvement of 7 points over 12 months).

Table 8 shows outcome data for anxiety. Overall, Community Solutions children were a half standard deviation over the national average for anxiety (with a standard score of 55). About 1 in 3 children were in the clinical range (scores over 60), and girls were about 9% more likely to be in the clinical range than were boys. Over 12 months, there was a statistically significant decline in Anxiety. Cohort 2 showed greater improvement than Cohort 3. Based on 6-month data, Cohort 4 also appears to be on track with outcomes comparable to those of Cohort 2.

Table 8. Anxiety

	N	Intake		6 Months		12 Months		6 mo. change	12 mo. change
		Mean	<i>S.D.</i>	Mean	<i>S.D.</i>	Mean	<i>S.D.</i>		
Anxiety (<i>Standard score with mean of 50 and stand deviation of 10</i>)									
Cohort 2	56	55.71	11.97	53.98	10.60	51.38	9.73	-1.73	-4.33**
Cohort 3	29	53.48	11.97	53.62	12.95	52.31	10.68	0.14	-1.17
Cohort 4	21	58.00	11.24	56.14	13.87			-1.86	
Total	87	54.68	11.96	53.53	11.47	51.41	10.15	-1.15	-3.27**

Source: Revised Children’s Manifest Anxiety Scale (RCMAS)

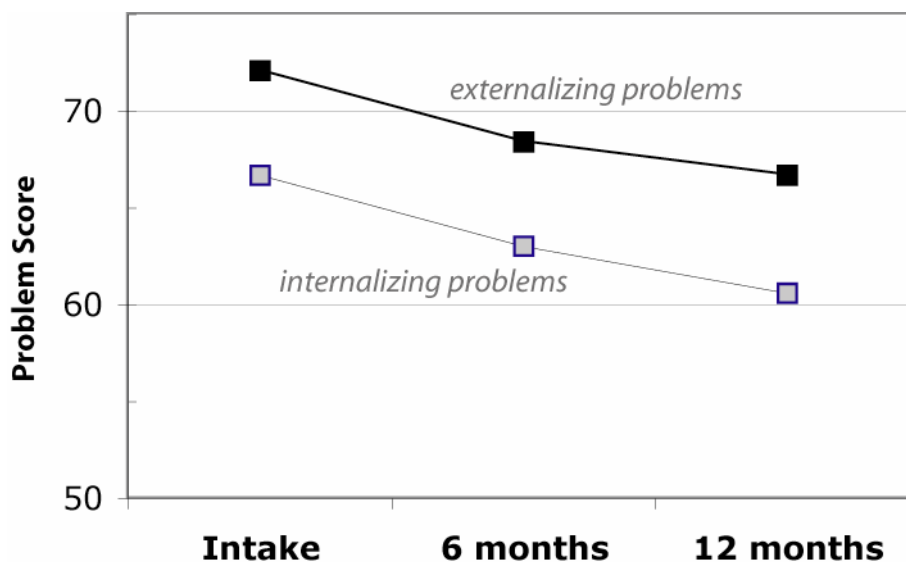
+p ≤ .10; *p ≤ .05; ** p ≤ .01; ***p ≤ .001.

Problem Behaviors. Caregivers reported on their children’s problem behaviors using the Child Behavior Checklist (CBCL). Appendix C provides detailed data on the severity of problem behaviors across a number of domains. Problem scores given in the appendix are based on normative comparison to other children of the same age and gender across the nation and are expressed as T-scores, with a population average of 50 and a standard deviation of 10. Lower scores are better. Scores are shown for 8 different narrow-band syndrome scales – Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints (i.e., sleep problems), Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behavior, and Aggressive Behavior. Two broad-band scales are also shown – Internalizing Problems and Externalizing Problems. Finally, a total composite Problem Score is provided.

Problem behaviors for Community Solutions children are severe. The average Total Problem score at intake was 72, more than 2 full standard deviations over the norm. (Scores 64 or higher are considered to be in the clinical range.) Externalizing problems in particular are more severe among Community Solutions children than are internalizing problems.

Figure 2 shows average (mean) externalizing and internalizing scores at intake, 6 months, and 12 months. Statistically and clinically significant improvements were evident for both externalizing and internalizing problems, though mean scores remain in the clinical range for externalizing problems and in the borderline range for internalizing problems. (See Appendix C for more detailed data.)

Figure 2. Change in Behavioral Problems



Source: Child Behavior Checklist (CBCL)

Cohort 3 showed greater improvement in problem behaviors over 12 months than did Cohort 2. This pattern held for all problem domains except Somatic Complaints. (Insufficient data have been collected for Cohort 4 to draw a valid comparison.) Cohort 3 had the highest level of Aggressive Behavior, with an extremely high standard score of 78 (nearly 3 standard deviations over the norm), but this was also the area which showed the greatest improvement (a reduction of 9 points over 12 months).

Functional Impairment. Caregivers in the national evaluation (Cohorts 2-4) rated their children's level of functional impairment – the extent to which they are impaired in their daily life as a result of their behavioral and emotional problems – using the Columbia Impairment Scale (CIS). Scores range from 0 to 52, with higher scores indicating greater levels of impairment; thus lower scores are better. Scores 15 or higher are considered to be in the clinical range.

Table 9 shows mean results for this instrument. Over 6 months, there was an average improvement of nearly 5 points, and over 12 months, there was an average improvement of 7 points on the Columbia Impairment Scale. These improvements were statistically significant. However, children remain on average within the clinical range for impairment.

Table 9. Global Impairment

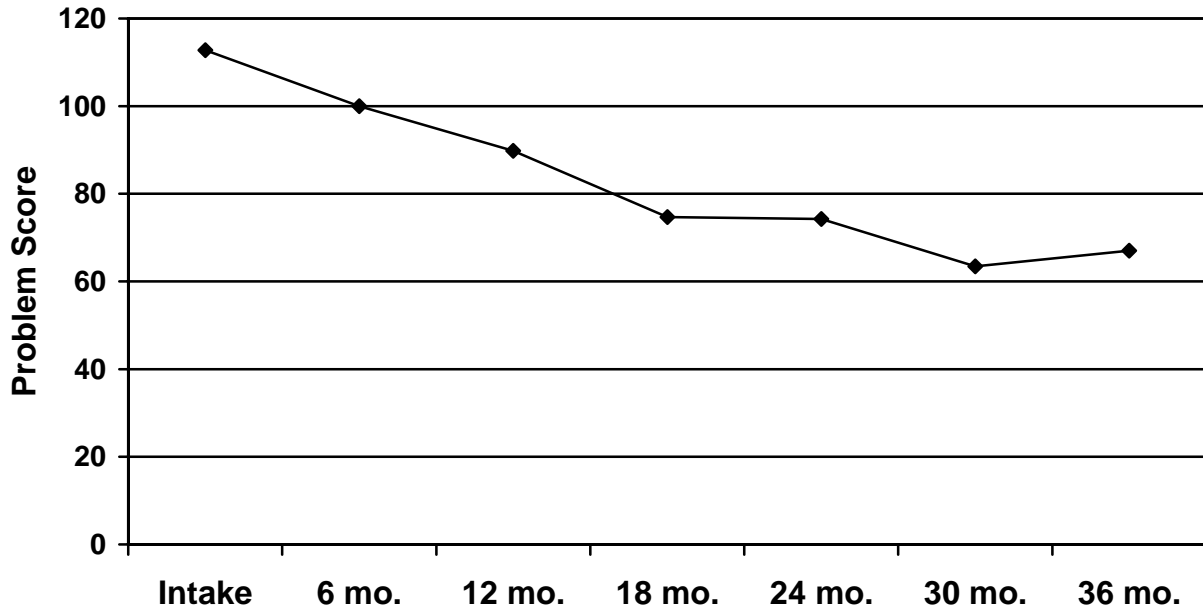
	N	Intake		6 Months		12 Months		6 mo. change	12 mo. change
		Mean	<i>S.D.</i>	Mean	<i>S.D.</i>	Mean	<i>S.D.</i>		
Global Impairment Score (<i>Scale of 0 to 52; Lower scores are better</i>)									
Cohort 2	98	26.90	9.83	21.58	9.35	20.42	11.24	-5.32***	-6.58***
Cohort 3	61	24.77	10.70	21.20	11.46	17.11	9.31	-3.57***	-7.66***
Cohort 4	41	25.49	9.38	24.17	11.29			-1.32	
Total	161	26.11	10.14	21.44	10.19	19.06	10.60	-4.67***	-7.05***

Source: Columbia Impairment Scale (CIS)
 +p ≤ .10; *p ≤ .05; ** p ≤ .01; ***p ≤ .001.

Children in Cohort 1 were also assessed for functional impairment using a different instrument, the Child and Adolescent Functional Assessment Scale (CAFAS). The CAFAS measures impairment in 8 areas: school role performance, home role performance, community role performance, behavior toward others, moods/emotions, self-harmful behavior, substance use, and thinking. In addition, a total score was calculated for each child in order to assess his or her global level of impairment.

Nearly all of the families in Cohort 1 have completed the 36-month longitudinal study. Figure 3 shows the average (mean) total CAFAS scores for 47 families who completed the full complement of follow-ups (i.e., no evaluation interviews were missed). Impairment scores showed marked improvement over each successive time frame through 18 months. Between 18 and 36 months after enrolling in wraparound, children sustained their improved functioning level and showed some evidence of continuing to improve (although scores remained within the clinical range of severity). Altogether, over 26 months, there was a 46-point drop in CAFAS scores, more than twice the level of improvement to be considered clinically significant (i.e., a 20-point change).

Figure 3. Functional Impairment
(Lower scores are better)
(N = 47)



Source: Child and Adolescent Functional Assessment Scale (CAFAS)

Table 10 shows CAFAS scores broken down into the 8 domains. Scores in each area range from 0 (no impairment) to 30 (severe impairment). At intake, the highest levels of impairment were in the areas of School, Home, and Behavior Toward Others. All domains showed statistically significant improvement, with the exception of Substance Use, which was (on average) not a major issue for Community Solutions children.

Table 10. Impairment by Domain
(N = 47)

	Intake	6 mo.	12 mo.	18 mo.	24 mo.	30 mo.	36 mo.
CAFAS Subscale (0 = No Impairment, 10 = Mild, 20 = Moderate, 30 = Severe)							
School***	23.83	21.91	18.94	16.38	15.74	13.62	13.40
Home***	21.70	19.79	17.02	14.26	13.83	11.28	11.70
Community*	10.43	9.15	7.02	6.81	5.96	5.53	6.38
Behavior Toward Others***	21.28	18.51	17.45	14.26	13.83	12.13	12.55
Moods/Emotion***	19.36	17.02	15.96	14.26	15.74	13.19	14.89
Self-Harmful Behavior**	7.66	5.32	4.26	2.77	4.26	3.19	2.13
Substance Use	2.55	3.83	4.04	2.13	2.13	2.34	3.83
Thinking/Communication***	5.96	4.47	5.11	3.83	2.77	2.13	2.13
Total Impairment***	112.76	100.00	89.79	74.68	74.26	63.40	67.02

Source: Child and Adolescent Functional Assessment Scale (CAFAS)

+p ≤ .10; *p ≤ .05; ** p ≤ .01; ***p ≤ .001.

Family Life. For the national evaluation (Cohorts 2-4), caregivers completed the Family Life Questionnaire, which measures family communication, decision making, support, and bonding. The questionnaire consists of 10 items. For each item, caregivers are asked to rate on a 5-point scale how often each type interaction occurs in their family.

Table 11 shows average (mean) family life scores. Family life improved significantly over 12 months. Although scores increased over time for Cohorts 2 and 3, Cohort 4 appears to have declined based on the 6-month data, though this difference was not statistically significant.

Table 11. Family Life

	N	Intake		6 Months		12 Months		6 mo. change	12 mo. change
		Mean	S.D.	Mean	S.D.	Mean	S.D.		
Family Life Score (Scale of 1 - 5; Higher scores are better)									
Cohort 2	97	3.19	0.68	3.25	0.66	3.36	0.72	0.06	0.17*
Cohort 3	65	3.38	0.63	3.45	0.68	3.60	0.62	0.07	0.22**
Cohort 4	41	3.38	0.96	3.28	0.88			-0.10	
Total	164	3.26	0.67	3.33	0.68	3.46	0.70	0.07	0.20***

Source: Family Life Questionnaire (FLQ)

+p ≤ .10; *p ≤ .05; ** p ≤ .01; ***p ≤ .001.

Additional data pertaining to family life relates to the amount of daily strain on caregivers as a result of their child's behavioral/emotional problems. Appendix D provides detailed data derived from the Caregiver Strain Questionnaire (CGSQ) which was administered to Cohorts 2-4. Caregiver strain is measured in 3 domains: Objective Strain (e.g., lost work time, financial hardship), Subjective Externalizing Strain (e.g., anger, resentment, embarrassment), and Subjective Internalizing Strain (e.g., worry, guilt, fatigue). Each domain is assigned a score from 1 to 5, with higher scores indicating greater strain. A total score is also calculated by summing the three subscores.

For Community Solutions caregivers, the greatest strain was in the area of Subjective Internalizing, where the average score was around 4.0. There were significant declines in all areas of caregiver strain, as measured at 6 and 12 months. In each area, Cohort 4 showed less improvement than the other cohorts.

Summary

This report examined process and outcome data for 4 cohorts of families receiving wraparound through Community Solutions. Key findings were as follows:

Process Findings

- The number of families referred to Community Solutions who went on to engage in wraparound declined over time. During the first 2 years of service, the engagement rate was about 8 in 10. During the second 2 years, the engagement rate fell to about 6 in 10.
- Individual agencies differed in their engagement rates. Lena Pope Home and Mental Health Mental Retardation of Tarrant County had the highest engagement rates. Individual facilitators varied widely in their engagement rates, ranging from 43% to 100% of families successfully engaged in services.
- Across program years, the length of time between referral and first service has remained consistent with a median time of 14 days.
- The median length of service (i.e., the time the wraparound case is open) has declined during each successive year of the program, from 382 days for Cohort 1 to 328 days for Cohort 3.
- The number of families with successful graduations (as recorded on closure form) has increased over time, from 50% for Cohort 1 to 65% for Cohort 3. (Closure data are not yet available for Cohort 4.)
- There is some evidence that families are increasingly satisfied with services; in Cohort 3, it was found that satisfaction scores increased significantly from 6 months to 12 months. (It remains to be seen whether this pattern will hold for Cohort 4 as well.)

Outcome Findings

- Significant improvements in outcomes over 12 months were found in the areas of Strengths, Depression, Anxiety, Problem Behaviors, Functional Impairment, Family Life, and Caregiver Strain.
- Cohorts 2 and 3, which had higher graduation rates than the first cohort, had far better strength-based outcomes.
- Less data are available to evaluate outcomes for Cohort 4, but based on 6-month outcomes, it appears that Cohort 4 lags behind Cohorts 2 and 3 in outcomes relating to Strengths, Problem Behaviors, Functional Impairment, Family Life, and Caregiver Strain.
- Based on long-term data collected from the first cohort, it appears that children's improved functioning was sustained throughout the 3-year follow-up period.

Appendix A. Behavioral/Emotional Strengths

CAREGIVER RATINGS

	N	Intake		6 Months		12 Months		6 mo. change	12 mo. change
		Mean	S.D.	Mean	S.D.	Mean	S.D.		
Interpersonal Strength (Standard score with mean of 10 and stand deviation of 3)									
Cohort 1	62	6.37	2.59	6.92	3.03	7.24	3.28	0.55	0.87+
Cohort 2	93	6.11	3.02	7.15	2.97	7.45	2.99	1.04***	1.34***
Cohort 3	53	5.53	2.84	6.34	2.78	7.36	2.88	0.81**	1.83***
Cohort 4	35	5.89	2.98	6.29	2.61			0.40	
Total	210	6.02	2.85	6.85	2.96	7.39	3.03	0.83***	1.37***
Family Involvement (Standard score with mean of 10 and stand deviation of 3)									
Cohort 1	62	6.98	2.54	7.50	2.88	7.71	2.55	0.52	0.73*
Cohort 2	93	6.99	2.88	7.67	2.73	7.80	2.62	1.68*	1.81**
Cohort 3	53	6.62	2.41	7.23	2.63	8.04	3.06	0.61*	1.42***
Cohort 4	35	7.31	3.23	7.51	3.08			0.20	
Total	210	6.87	2.66	7.48	2.75	7.82	2.70	0.61***	0.95***
Intrapersonal Strength (Standard score with mean of 10 and stand deviation of 3)									
Cohort 1	62	8.40	3.09	8.08	2.89	8.15	2.98	-0.32	-0.25
Cohort 2	93	7.22	3.28	7.91	3.01	8.19	3.34	0.69*	0.97**
Cohort 3	53	6.70	2.75	7.51	3.02	8.36	3.22	0.81*	1.66***
Cohort 4	35	6.89	3.17	7.20	2.76			0.31	
Total	210	7.46	3.15	7.87	2.96	8.27	3.22	0.41***	0.81*
School Functioning (Standard score with mean of 10 and stand deviation of 3)									
Cohort 1	62	6.16	2.63	6.68	2.67	7.18	3.07	0.52	1.02*
Cohort 2	93	6.12	3.08	7.10	3.14	7.12	3.03	0.98***	1.00***
Cohort 3	53	5.68	2.79	6.81	2.86	7.34	2.98	1.13**	1.66***
Cohort 4	35	6.17	3.09	6.80	2.93			0.63	
Total	210	6.04	2.90	6.90	2.92	7.23	3.05	0.86***	1.19***
Affective Strength (Standard score with mean of 10 and stand deviation of 3)									
Cohort 1	62	8.56	2.99	8.61	3.09	8.98	3.28	0.05	0.42
Cohort 2	93	7.62	2.84	8.42	2.75	8.68	3.10	0.80**	1.06***
Cohort 3	53	7.77	2.80	8.36	2.79	8.60	3.24	0.59+	0.83+
Cohort 4	35	7.91	3.19	8.51	2.96			0.60	
Total	210	7.92	2.88	8.44	2.86	8.78	3.19	0.52***	0.86**
Total Strength Index (Standard score with mean of 100 and stand deviation of 15)									
Cohort 1	62	81.76	13.97	83.58	16.51	84.60	19.79	1.82	2.84
Cohort 2	93	78.06	16.62	83.82	16.38	85.16	17.39	5.76***	13.10***
Cohort 3	53	75.74	15.00	81.02	16.80	85.81	17.90	5.28***	10.07***
Cohort 4	35	78.23	17.44	81.09	15.55			2.86	
Total	210	78.55	15.49	82.95	16.44	85.32	18.19	4.40***	6.77***

Source: Behavioral and Emotional Rating Scale (BERS-2C)

+p ≤ .10; *p ≤ .05; ** p ≤ .01; ***p ≤ .001.

YOUTH SELF-RATINGS

	N	Intake		6 Months		12 Months		6 mo. change	12 mo. change
		Mean	S.D.	Mean	S.D.	Mean	S.D.		
Interpersonal Strength (Standard score with mean of 10 and stand deviation of 3)									
Cohort 2	57	8.26	3.95	8.61	3.29	8.21	3.21	0.35	-0.05
Cohort 3	24	8.71	3.03	8.92	2.77	9.67	3.60	0.21	0.96
Cohort 4	20	8.00	3.06	8.20	3.04			0.20	
Total	145	7.60	3.49	8.01	3.26	8.12	3.44	0.41+	0.52+
Family Involvement (Standard score with mean of 10 and stand deviation of 3)									
Cohort 2	57	8.67	3.18	8.44	2.65	8.96	3.19	-0.23	0.29
Cohort 3	24	8.63	2.93	9.08	3.16	9.42	2.59	0.45	0.79
Cohort 4	20	7.95	2.87	8.50	2.24			0.55	
Total	145	7.92	2.97	8.12	2.88	8.51	2.89	0.20	0.59*
Intrapersonal Strength (Standard score with mean of 10 and stand deviation of 3)									
Cohort 2	57	9.12	3.13	9.44	2.88	8.98	2.35	0.32	-0.14
Cohort 3	24	9.67	3.06	10.50	2.49	10.13	2.77	0.83+	0.46
Cohort 4	20	9.85	2.74	10.15	2.54			0.30	
Total	145	8.94	3.12	9.06	2.94	8.86	2.79	0.12	-0.08
School Functioning (Standard score with mean of 10 and stand deviation of 3)									
Cohort 2	57	8.63	3.64	9.05	3.15	8.81	2.98	0.42	0.18
Cohort 3	24	8.42	2.13	8.79	2.28	8.92	2.24	0.37	0.50
Cohort 4	20	8.45	2.76	8.40	2.54			-0.05	
Total	145	7.56	3.21	7.98	3.00	8.14	3.00	0.42+	0.58*
Affective Strength (Standard score with mean of 10 and stand deviation of 3)									
Cohort 2	57	8.91	3.59	8.77	3.01	8.74	3.06	-0.14	-0.17
Cohort 3	24	10.08	2.84	9.88	3.14	10.21	3.34	-0.20	0.13
Cohort 4	20	9.65	2.83	9.45	2.76			-0.20	
Total	145	9.01	3.26	8.94	3.10	9.13	3.24	-0.16	-0.10
Total Strength Index (Standard score with mean of 100 and stand deviation of 15)									
Cohort 2	57	91.12	19.69	92.07	15.65	91.19	15.50	0.95	0.07
Cohort 3	24	93.71	15.71	95.92	14.49	97.54	16.38	2.21	3.83
Cohort 4	20	91.50	13.35	92.55	12.87			1.05	
Total	145	87.77	17.45	89.24	16.49	89.68	18.19	1.47	1.91

Source: Behavioral and Emotional Rating Scale (BERS-2Y)

+p ≤ .10; *p ≤ .05; ** p ≤ .01; ***p ≤ .001.

Appendix B. Depression

YOUTH SELF-REPORTS

	N	Intake		6 Months		12 Months		6 mo. change	12 mo. change
		Mean	S.D.	Mean	S.D.	Mean	S.D.		
Overall Depression (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	57	54.53	10.30	52.75	8.50	51.89	9.85	-1.78	-2.64*
Cohort 3	29	52.69	9.62	51.31	9.53	51.24	12.16	-1.38	-1.45
Cohort 4	21	54.52	10.31	53.00	10.11			-1.52	
Total	88	53.70	10.03	51.97	9.02	51.27	10.82	-1.73	-2.43*
Dysphoria (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	57	51.00	10.62	49.30	9.74	48.33	10.44	-1.7	-2.67+
Cohort 3	29	51.10	11.18	50.10	10.43	47.79	12.12	-1.00	-3.31
Cohort 4	21	51.05	12.86	51.19	11.78			0.14	
Total	88	50.83	10.74	49.35	10.00	47.83	11.06	-1.48	-3.00*
Anhedonia (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	57	52.72	8.71	53.51	7.60	54.14	9.78	0.79	1.42
Cohort 3	29	51.17	7.69	50.31	5.54	54.07	9.94	-0.86	2.90+
Cohort 4	21	49.86	5.49	50.71	6.75			0.85	
Total	88	52.11	8.35	52.19	7.20	53.89	9.79	0.08	1.78
Negative Self-Evaluation (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	57	56.91	11.59	50.98	9.58	49.88	9.77	-5.93*	-7.03*
Cohort 3	29	54.97	11.08	54.03	11.33	52.97	12.48	-0.94	-2.00
Cohort 4	21	56.67	12.48	54.00	10.87			-2.67	
Total	88	56.09	11.32	54.01	10.19	52.83	10.73	-2.08+	-3.26*
Somatic Complaints (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	57	52.91	10.40	50.98	9.70	49.88	10.01	-1.93	-3.03+
Cohort 3	29	50.69	8.59	49.28	9.42	48.52	10.66	-1.41	-2.17
Cohort 4	21	56.10	11.03	53.19	10.11			-2.91	
Total	88	51.99	9.89	50.19	9.70	49.02	10.41	-1.80	-2.97*

Source: Reynolds Adolescent Depression Scale (RADS-2)

+p ≤ .10; *p ≤ .05; ** p ≤ .01; ***p ≤ .001.

Appendix C. Behavioral/Emotional Problems

NARROW-BAND SCALES

	N	Intake		6 Months		12 Months		6 mo. change	12 mo. change
		Mean	S.D.	Mean	S.D.	Mean	S.D.		
Social Problems (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	93	68.81	9.77	65.87	9.37	65.00	9.93	-2.94***	-3.81***
Cohort 3	54	67.46	10.21	64.89	10.11	61.65	9.54	-.43*	-5.81***
Cohort 4	36	69.47	10.72	66.33	10.45			-3.14*	
Total	149	68.22	9.92	65.40	9.61	63.64	9.90	-2.82***	-4.58***
Thought Problems (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	93	68.00	9.72	65.33	8.71	64.47	9.11	-5.67**	-4.53***
Cohort 3	54	68.96	9.49	65.39	10.56	64.09	9.61	-3.57***	-4.87***
Cohort 4	36	69.25	8.95	66.14	9.89			-3.11**	
Total	149	68.28	9.61	65.28	9.42	64.26	9.28	-3.00***	-4.02***
Attention Problems (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	93	69.90	12.19	66.54	9.41	65.68	10.15	-3.36**	-4.22***
Cohort 3	54	69.39	10.52	65.41	8.97	63.15	7.92	-3.98***	-6.24***
Cohort 4	36	72.94	12.47	69.19	11.47			-3.75+	
Total	149	69.68	11.50	66.09	9.18	64.73	9.38	-3.59***	-4.95***
Anxious/Depressed (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	93	66.13	9.91	62.02	9.86	61.03	9.66	-4.11***	-5.10***
Cohort 3	54	67.24	11.71	63.02	10.98	60.56	9.93	-4.22***	-6.68***
Cohort 4	36	68.53	9.10	65.33	10.01			-3.20*	
Total	149	66.46	10.55	62.27	10.25	60.72	9.74	-4.19***	-5.74***
Withdrawn/Depressed (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	93	67.86	9.84	64.27	8.49	64.06	10.07	-3.59***	-3.80***
Cohort 3	54	66.98	9.85	64.67	9.12	61.57	8.41	-2.31*	-5.41***
Cohort 4	36	66.08	11.43	63.83	10.19			-2.25**	
Total	149	67.40	9.84	64.39	8.67	63.00	9.56	-2.25***	-4.40***
Somatic Complaints (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	93	61.26	9.16	59.13	8.41	57.18	7.24	-2.13*	-4.08***
Cohort 3	54	60.06	10.30	57.74	9.95	56.81	8.28	-2.32*	-3.25**
Cohort 4	36	59.97	9.53	59.53	9.11			-.044	
Total	149	60.74	9.56	58.64	8.94	56.98	7.59	-2.1**	-3.76***
Rule-Breaking Behavior (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	93	68.75	9.02	65.81	8.03	65.30	8.46	-2.94***	-3.45***
Cohort 3	54	68.54	8.83	66.00	8.64	64.02	8.63	-2.54***	-4.52***
Cohort 4	36	68.50	9.28	66.81	9.09			-1.69	
Total	149	68.66	8.87	65.83	8.21	64.75	8.50	-2.83***	-3.91***
Aggressive Behavior (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	93	73.95	11.28	69.56	11.13	69.12	11.96	-4.39***	-4.83***
Cohort 3	54	77.74	11.87	72.78	12.13	68.33	11.85	-4.96***	-9.41***
Cohort 4	36	76.06	10.73	71.78	10.14			-4.28**	
Total	149	75.36	11.59	70.80	11.61	68.72	11.86	-4.56***	-6.64***

Source: Child Behavior Checklist (CBCL)
 +p ≤ .10; *p ≤ .05; ** p ≤ .01; ***p ≤ .001.

BROAD-BAND SCALES

	N	Intake		6 Months		12 Months		6 mo. change	12 mo. change
		Mean	S.D.	Mean	S.D.	Mean	S.D.		
Internalizing Problems (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	93	66.90	8.63	63.05	9.15	61.40	10.18	-3.85***	-5.50***
Cohort 3	54	66.69	9.96	63.15	10.17	59.74	10.35	-3.54***	-6.95***
Cohort 4	36	67.39	9.71	64.67	9.06			-2.72*	
Total	149	66.72	9.10	63.03	9.48	60.60	10.31	-3.69***	-6.12***
Externalizing Problems (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	93	71.51	8.35	67.92	8.37	67.19	9.48	-3.59***	-4.32***
Cohort 3	54	73.17	8.26	69.30	9.72	66.19	10.31	-3.87***	-6.98***
Cohort 4	36	72.44	7.94	69.72	8.05			-2.72**	
Total	149	72.13	8.29	68.43	8.88	66.74	9.75	-3.70***	-5.39***
Total Problems (Standard score with mean of 50 and stand deviation of 10)									
Cohort 2	93	71.51	7.37	67.88	7.77	66.23	9.70	-3.63***	-5.28***
Cohort 3	54	72.15	7.12	68.04	9.07	65.09	8.87	-4.11***	-7.06***
Cohort 4	36	72.42	7.66	68.97	8.55			-3.45***	
Total	149	71.71	7.23	67.89	8.24	65.70	9.39	-3.82***	-6.01***

Source: Child Behavior Checklist (CBCL)
 +p ≤ .10; *p ≤ .05; ** p ≤ .01; ***p ≤ .001.

Appendix D. Caregiver Strain

	N	Intake		6 Months		12 Months		6 mo. change	12 mo. change
		Mean	S.D.	Mean	S.D.	Mean	S.D.		
Caregiver Strain - Objective (Scale of 1-5)									
Cohort 2	96	2.89	1.02	2.51	1.12	2.28	1.11	-0.38***	-0.61***
Cohort 3	58	3.06	1.11	2.56	1.11	2.43	1.10	-0.50***	-0.63***
Cohort 4	41	2.80	.90	2.48	.85			-0.32*	
Total	156	2.95	1.05	2.53	1.11	2.33	1.10	-0.42***	-0.62***
Caregiver Strain - Subjective Externalizing (Scale of 1-5)									
Cohort 2	96	2.56	1.00	2.31	.92	2.22	.91	-0.25**	-0.34***
Cohort 3	58	2.37	.97	2.14	.87	2.02	.92	-0.23*	-0.35**
Cohort 4	41	2.43	1.04	2.40	1.04			-0.03	
Total	156	2.49	1.00	2.25	.91	2.13	.92	-0.24***	-0.36***
Caregiver Strain - Subjective Internalizing (Scale of 1-5)									
Cohort 2	96	3.92	.80	3.44	.92	3.22	1.03	-0.48***	-0.70***
Cohort 3	58	4.03	.74	3.44	1.08	3.22	1.16	-0.59***	-0.81***
Cohort 4	41	3.74	1.00	3.49	1.04			-0.25+	
Total	156	3.96	.78	3.44	.99	3.21	1.08	-0.52***	-0.75***
Caregiver Strain - Global (Scale of 3-15)									
Cohort 2	96	9.37	2.31	8.26	2.44	7.73	2.59	-1.11***	-1.64***
Cohort 3	58	9.45	2.21	8.14	2.56	7.67	2.76	-1.31***	-1.78***
Cohort 4	41	8.98	2.47	8.37	2.40			-0.61*	
Total	156	9.40	2.27	8.22	2.50	7.66	2.66	-1.18***	-1.74***

Source: Caregiver Strain Questionnaire (CGSQ)

+p ≤ .10; *p ≤ .05; ** p ≤ .01; ***p ≤ .001.

Appendix E. Satisfaction

	N	6 Months		12 Months		Change
		Mean	S.D.	Mean	S.D.	
Access (Scale of 1-5)						
Cohort 2	70	4.40	0.64	4.42	0.71	.02
Cohort 3	49	4.32	1.00	4.52	0.80	.20
Cohort 4	41	4.50	0.62			
Total	121	4.37	0.80	4.46	0.74	.09
Participation (Scale of 1-5)						
Cohort 2	70	4.26	0.73	4.23	0.75	-.03
Cohort 3	49	4.29	0.85	4.52	0.73	.23*
Cohort 4	41	4.38	0.54			
Total	121	4.27	0.77	4.36	0.75	.09
Cultural Sensitivity (Scale of 1-5)						
Cohort 2	70	4.64	0.49	4.54	0.58	-.10
Cohort 3	49	4.55	0.78	4.78	0.61	.23*
Cohort 4	41	4.66	0.46			
Total	121	4.61	0.62	4.64	0.60	.03
Services (Scale of 1-5)						
Cohort 2	70	4.23	0.65	4.15	0.93	-.08
Cohort 3	49	4.18	0.92	4.34	0.93	.16
Cohort 4	41	4.28	0.68			
Total	121	4.22	0.77	4.24	0.92	.02
Outcome (Scale of 1-5)						
Cohort 2	70	3.49	0.77	3.46	0.90	-.03
Cohort 3	49	3.49	0.91	3.74	0.82	.28*
Cohort 4	41	3.50	0.58			
Total	121	3.50	0.83	3.59	0.88	.09
Overall (Scale of 1-5)						
Cohort 2	70	4.12	0.49	4.06	0.65	-.06
Cohort 3	49	4.08	0.78	4.30	0.70	.22*
Cohort 4	41	4.17	0.43			
Total	121	4.11	0.62	4.17	0.68	.06

Source: Youth Services Survey

+p ≤ .10; *p ≤ .05; ** p ≤ .01; ***p ≤ .001.