Early Childhood Specialist Program Report

Fiscal Year 2007-2008

Division of Behavioral Health
Office of Behavioral Health and Housing
Colorado Department of Human Services

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Acknowledgements:

Portions of this report were written by Sue Ammen, PhD, Early Childhood Specialist at Aurora Mental Health Center. Dr. Ammen contributed the PSI analysis. Ann Jones at the Colorado Division of Behavioral Health wrote the CCAR analysis section and Heather Cameron, University of Denver, wrote the sections on training, compiled the stories, and made the graphs. Special thanks to Nancy Johnson Nagel, PhD, Project BLOOM Evaluation Director, for assisting with the development of the outcomes for this program. The rest of the report was compiled by Claudia Zundel, MSW, Manager, Early Childhood Programs at the Colorado Department of Human Services, Division of Behavioral Health. This report would not have been possible without the hard work and reporting of the Early Childhood Specialists at each of the 17 Colorado community mental health centers.

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Executive Summary

This report details the work and results of the Early Childhood Specialist Program during fiscal year (FY) 2007-2008, the second year of operation.

Overview of Services Provided

Each of Colorado's 17 publicly funded community mental health centers receives funding to staff a full-time early childhood mental health specialist to provide direct services, consultative services to families and early care and education and other providers, and cross-systems program development. Early childhood specialists (ECS) screened 60 percent more children for mental health and developmental issues (5,762 children) in FY 2007-2008 compared to the previous year. In addition, ECSs provided 709 in-depth clinical assessments, up from 289 in the program's first year. There were at least 189 new enrollments of non-Medicaid children who received a variety of services, including caregiver interventions, case management, and child interventions through this program. The specialists also provided over 170 trainings in their communities on a variety of early childhood mental health topics, more than doubling the number provided last fiscal year.

Results

The Early Childhood Specialist Program (ECSP) measured child and family outcomes in three areas: Change in Child Functioning, Change in Child/Family Functioning, and Change in Family Functioning. Two tools were used to collect this data, the Colorado Client Assessment Record (CCAR) and the Parenting Stress Index (PSI). The CCAR is a clinician-completed form and the PSI is a parent-completed instrument.

Results from the CCAR demonstrate a significant difference in the right direction on all eight CCAR clinical dimensions using a 95 percent confidence interval. In other words, children served through the ECSP showed significant improvement in the domains of socialization, family, social support, hope, empowerment, role performance, overall symptom severity and overall level of functioning over a three month time period.

Although the treatment effects as captured by the PSI are not as dramatic as the effects noted during the first year of the project (overall effect size of .52), the changes are still significant. The PSI results for FY 2007-2008 show an almost 50 percent reduction in parenting stress, an almost 40 percent reduction in difficult child behavior, and an almost 30 percent reduction in high risk problems in the parent-child relationship. A survey of the ECSs across the different mental health agencies suggests that they are now seeing more severe and complex cases, which may be contributing to the lower effect sizes. The actual change in mean scores from pre-test to post test were very similar between the two reports, but the standard deviations for the present report are greater, supporting the clinician reports of greater variability and complexity in the cases.

Early Childhood Mental Health State Activities

The 2006-7 Early Childhood Specialist Program Report covered background information on the importance of early childhood mental health. This section will focus on selected activities that occurred during FY 2007-2008.

Early Childhood Colorado Framework

Lieutenant Governor Barbara O'Brien's Office released an early childhood framework that outlines the four domain areas of a comprehensive early childhood system: Early care and education, family support and parent education, social emotional and mental health, and health (July 2008). This report includes input from 22 stakeholder reports as well as from national experts in early childhood mental health. The mental health outcomes were derived largely from the Blue Ribbon Plan described on the next page. ***Figure 1*** below depicts this framework.

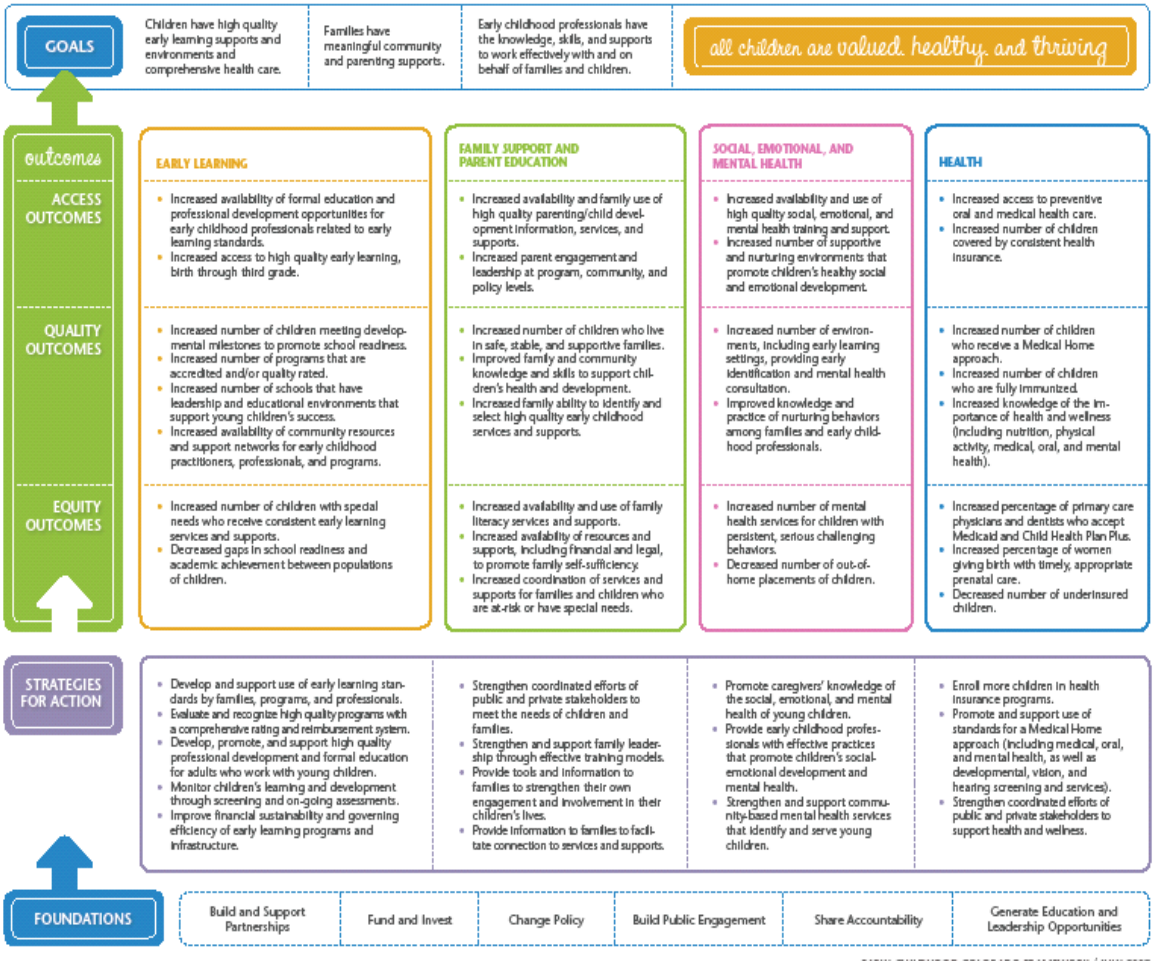


Figure 1 – Early Childhood Colorado Framework (http://earlychildhoodcolorado.org/systems_building/)

Blue Ribbon Policy Council State Strategic Plan

The Colorado Blue Ribbon Policy Council on Early Childhood Mental Health released a state plan in November of 2008. The guiding vision for the plan is that all Colorado children reach their full social and emotional potential. The plan identifies five strategic goals.

- **Goal 1: Public Engagement –** The people of Colorado have a common understanding of early childhood mental health and embrace and support the healthy social and emotional development of young children.

- **Goal 2: Professional and Workforce Development –** All personnel in disciplines working with young children and their families use effective promotion, prevention and intervention strategies for mental health.

- **Goal 3: Funding and Finance –** Financial and human investments and policies regarding children's mental health follow a framework for promotion, prevention and intervention; are embedded within Colorado's early childhood system and demonstrate accountability.

- **Goal 4: Program Availability –** Colorado families and caregivers are able to easily obtain appropriate and affordable mental health resources and supports for their children and themselves at the promotion, prevention and intervention levels.

- **Goal 5: System of Care –** A comprehensive and effective system of care exists that supports early childhood mental health.

The Colorado Blue Ribbon Policy Council on Early Childhood Mental Health identified six critical strategies to reach and support children with mental health service needs (See ***Figure 2***).

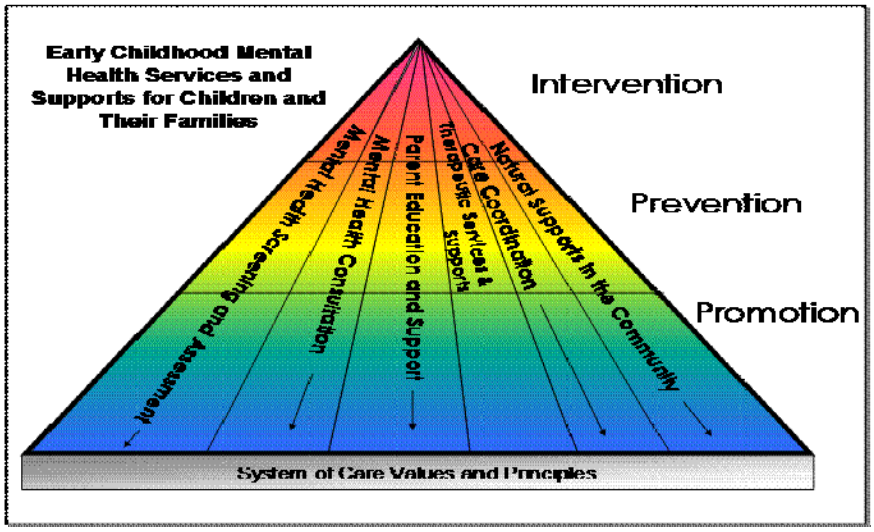


Figure 2 – Critical Strategies to Reach and Support Children (Hoover & Zundel, 2008**)**

Population in Need Study

The Division of Behavioral Health initiated a 2008 population in need study, which examines statewide prevalence, service utilization, and unmet needs of Coloradans with mental health, substance use, and co-occurring disorders. Preliminary data suggests prevalence rates for children ages birth through five at 7.25 percent and for households with income less than 300 percent of poverty the rate jumped to 8.76 percent. This means that approximately 30,000 children ages birth through five in Colorado potentially would meet the criteria for having a serious emotional disturbance (WICHE, 2008).

Connections to School Readiness

The Colorado P-3 committee included the measurement of social and emotional skills in their indicators of school readiness. In addition, the Colorado Preschool Program's 2009 Legislative Report showed significant improvements in social and emotional skills when children received extra support in this area. Through Results Matter, consistent data has been collected. In fact, this data showed that Colorado preschool children, specifically those with risk factors such as abuse and neglect, family history of substance abuse or homelessness etc. when compared with their more advantaged peers, improved 1.82 times faster in social and emotional growth when preschool was supplemented with programs focusing on social and emotional factors (CDE, 2009).

Professional Development Activities

The Colorado Association of Infant Mental Health continues to provide high quality professional development opportunities to professionals serving young children. In February 2009, the Colorado Association of Infant Mental Health held its second biannual, statewide infant and early childhood mental health conference titled, "Early Childhood Mental Health in Colorado, Competent, Confident and Recognized." The Association is continuing to explore the possibility of implementing the Michigan Endorsement Process in Colorado to promote the highest quality of care for young children. This process will enable professionals to demonstrate competency in early childhood mental health at four different levels of responsibility and focus. Those levels range from an Infant and Family Associate requiring only a Child Development Certificate to an Infant and Mental Health Mentor requiring post degree experience.

The Colorado Office of Professional Development announced the development of the Early Childhood Interdisciplinary Social and Emotional Health Credential in July 2009. The Credential is tied to Core Knowledge in this content area.

The Pyramid Model for Promoting Social and Emotional Competencies has been widely distributed with over 400 people completing the training statewide. A new infant and toddler module was introduced this year. This training focuses on professional development for childcare staff.

Work is progressing on embedding evidence-based competencies supporting young children's social and emotional development and preventing challenging behavior in community college

coursework. The competencies were identified by comparing national standards and distilling a common set of core competencies. This study reviewed such national standards as the National Association for the Education of Young Children and Center on the Social and Emotional Foundations for Early Learning. Four major areas with a number of sub themes were identified in common across the various national standards: Nurturing and Responsive Relationships, High Quality Environments, Targeted Social and Emotional Support and Intensive Interventions. (Cimino, et al., 2007)

National Data

Scientific evidence continues to support the benefit of appropriate early intervention with young children and their families. It is widely recognized that children need a strong social and emotional foundation to be ready for school and life. In fact, a recent paper from Harvard University's Center on the Developing Child is titled, "Mental Health Problems in Early Childhood Can Impair Learning and Behavior for Life" (Harvard University, 2008).

A number of national studies have documented the relationship between early childhood adversity (mental health issues) and later adult difficulties. These adult issues include, not surprisingly, depression and substance abuse but also heart disease (Perry, 2009). Significant adversity early in life changes the architecture of the brain, which can increase the likelihood of adult health and or mental health problems (Harvard University, 2008).

Over 25 years ago, Jane Knitzer (2008), in the widely acclaimed report, "Unclaimed Children: The Failure of Public Responsibility to Children in Need of Mental Health Services," described the lack of connection to mental health services for children and families in need. The National Center for Children in Poverty decided to revisit this issue and see to what extent new knowledge has influenced public policy. The Center sent out questionnaires to 53 jurisdictions, including all the states and territories as well as a number of other key groups. Their findings indicated that states are still struggling to serve children well, especially those with co-occurring disorders. Only half of the states reported statewide initiatives for children ages birth to 5 years.

The Early Childhood Specialist Program at a Glance

The Early Childhood Specialist Program was implemented in FY 2006 after a successful pilot from 1997-2002. The purpose of the program is to place an early childhood mental health specialist position in each of the 17 publicly funded community mental health centers across the State.

Goals of the program are to:

- Provide early childhood mental health services to non-Medicaid children
- Increase the capacity to provide early childhood mental health services at each of the 17 Colorado community mental health centers

Target Population

The Early Childhood Specialist Program targets children ages 0-5 and their families. Early childhood specialists (ECS) are located in each of the 17 community mental health centers across the state. ECS are trained in the unique developmental issues of young children and work with other community agencies to develop and sustain appropriate programming for the mental health needs of young children. While the entire community benefits from the ECS work and expertise, non-Medicaid eligible children, ages birth to 5, are the focus of individual services

Early Childhood Specialist Job Requirements

Colorado's community mental health centers were required to hire Masters-level clinicians with a background in early childhood. If such professionals are not available, centers are to recruit the best candidates, providing them with extensive clinical training in early childhood mental health.

All ECS are required to become proficient in using the DC: 0-3R assessment system. The DC: 0-3R **(**Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood) is a developmentally based system for diagnosing mental health and developmental disorders in infants and toddlers. This system complements existing medical and developmental assessment frameworks such as the Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association and the International Classification of Diseases of the World Health Organization. Its diagnostic categories reflect the consensus of a multidisciplinary group of experts in early childhood development and mental health and draws on empirical research and clinical practice. DC: 0-3R is designed to enhance mental health workers', as well a**s** other early childhood professionals' ability to prevent, diagnose, and treat mental health problems in the earliest years by identifying and describing disorders not addressed in other classification systems and by pointing the way to effective intervention approaches.

Colorado Early Childhood Specialist Program

ECSs provide screening and assessment services to the community. Many of the screenings may take place in childcare centers and in some cases, the pediatrician's office. A variety of tools may be used such as Ages and Stages, Social Emotional, and the Devereaux Early Childhood Assessment. When children are identified through the use of a screening instrument as having a concern, a more thorough assessment is conducted using other tools and more in-depth interviews with the child's caregivers. Assessments with young children may take longer than with older children or adults as the clinician must interview the caregivers and observe the child in various settings.

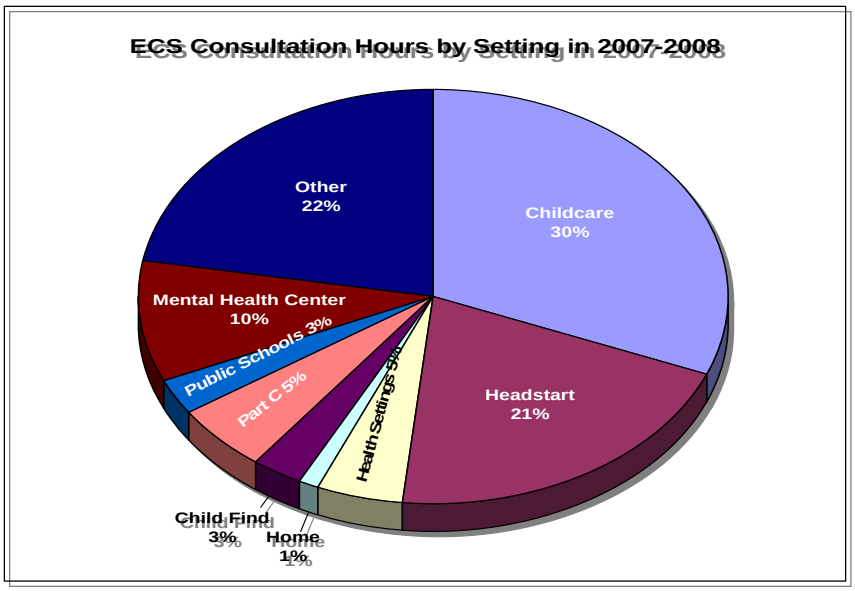


Figure 3 – ECS Consultation Hours by Setting

The ECSs provided **screenings for 5,762 children and 709 in-depth assessments** and ***Figure 3*** highlights the settings in which services were provided during the FY 2007-2008.

The ECS position is a combination of direct services, consultative services to families, early care and education providers, and cross-systems program development.

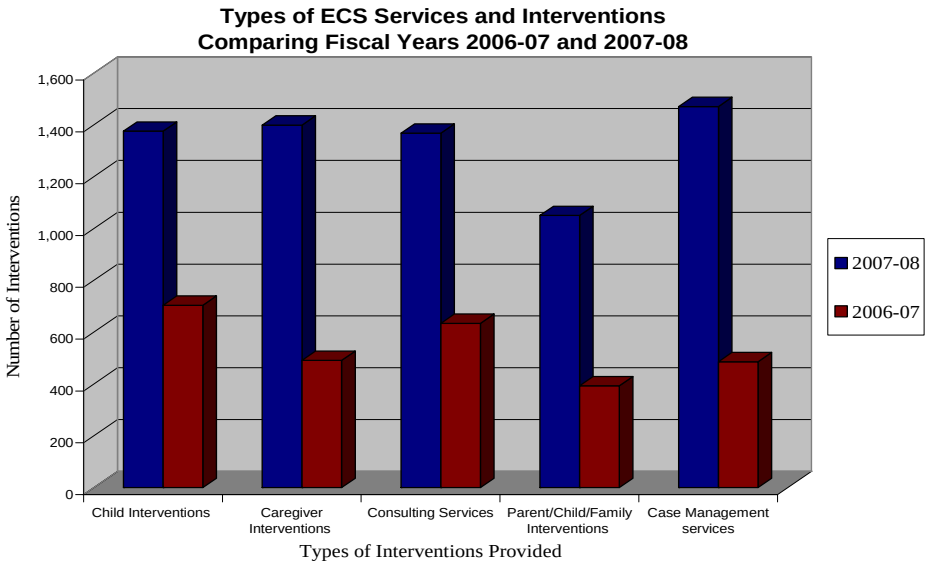


Figure 4 – Types of ECS Services and Interventions

Figure 4 shows the types of services provided by ECSs during the 2007-2008 FY.

Training

A component of the ECS role is to share knowledge with the community concerning early childhood mental health as well as attend early childhood specific trainings to further their expertise. In the FY 2007-2008, ECSs presented over 170 trainings statewide to early childhood professionals, parents, and community members.

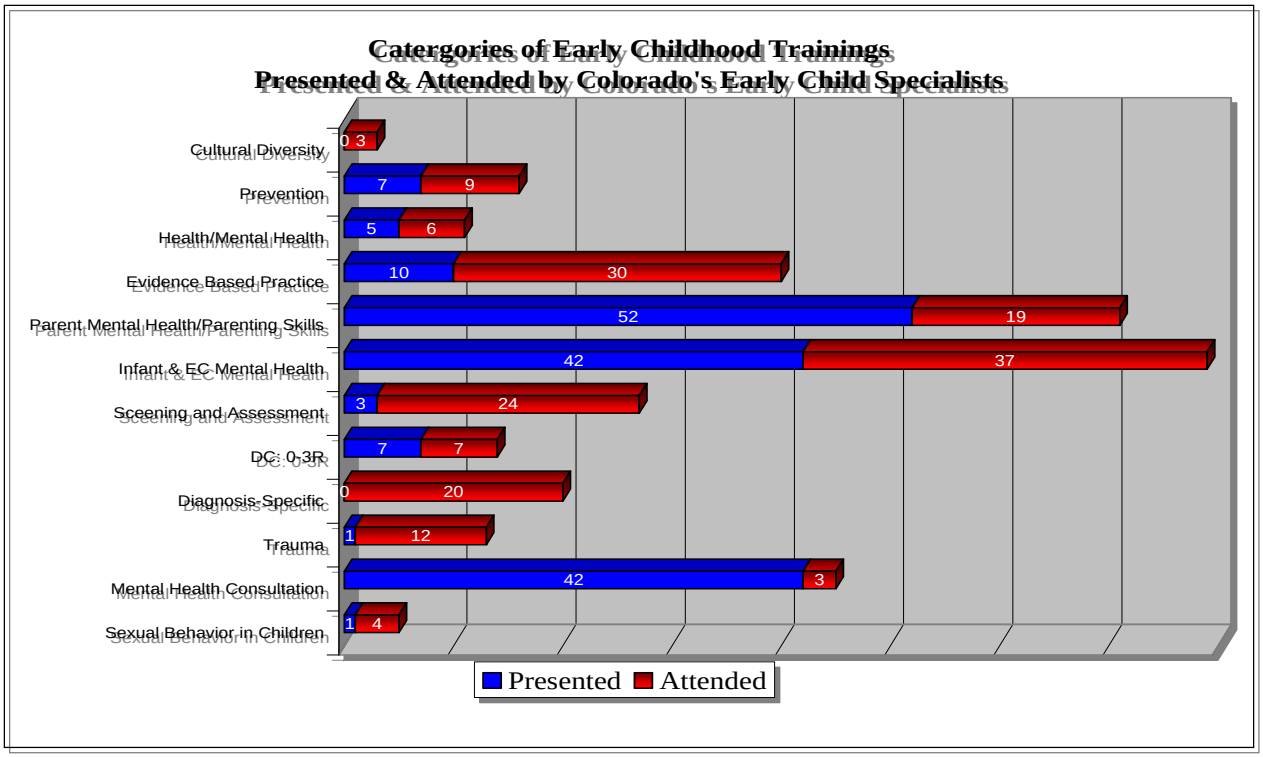


Figure 5 – Categories of Early Childhood Trainings

The topic categories of these trainings both presented and attended by ECSs are highlighted in ***Figure 5***. Training data was provided by 15 of the 17 Colorado mental heath centers.

Nearly all ECSs (87 percent) provided mental health consultation or challenging behavior trainings to childcare providers and over half (53 percent) presented parenting skills and strategy trainings such as, “Love and Logic,” “Effective Disciple for Foster Parents,” and “Time-In with Your Child.” ECSs also presented information about health and mental health, prevention/early intervention, and DC: 0-3 R training. One-forth (25 percent) of all trainings given to parents, early childhood providers, mental health centers, and community members specifically focused on education about infant and early childhood mental health.

As ECSs offer expertise to the community, furthering professional knowledge and staying current is key to providing the best practices in the field and effectively serving young children and their families. The State of Colorado offers bi-annual training and networking sessions for this purpose. Comprehensive training took place during the FY 2007-2008 at conferences such as the Colorado Child and Adolescent Mental Health Conference in the spring and sessions at the annual Colorado Behavioral Health Care (CBHC) Conference held annually in the fall.

In addition to state sponsored training, the specialists have pursued other trainings to enhance their skills. During FY 2007-2008, the ECSs participated in over 170 training sessions. As noted, screening and assessment are vital functions of the ECS job position. Thirteen out of 15 (87 percent) attended trainings related to screening and/or assessment in FY 2007-2008. Because ECSs were trained in DC: 0-3R during the first year of the ECS Program in Colorado (FY 2006-2007), the number of DC: 0-3R trainings decreased significantly during the second year.

Project BLOOM, a Substance Abuse and Mental Health Services Administration (SAMHSA) system-of-care grant focused on children birth to age 5, investigated early childhood intervention models and strategies and determined specific highly effective evidence based interventions, including models such as Trauma-Focused Cognitive Behavioral Therapy, Circle of Security, DBT, Theraplay, and Incredible Years. ECSs spent significant time attending and presenting on evidence based interventions such as these, as well as diagnosis specific trainings such as Autism, Sensory Processing Disorder, Attention Deficit Disorder (ADD)/Attention Deficit Hyperactivity Disorder (ADHD), and early childhood issues such as social/emotional development and normative sexual behavior in young children. There was also a focus on parent mental health and family issues affecting early childhood development. 60 percent attended trainings with titles such as, "Children of Alcoholics," "Post-Partum Depression," and "Family Assessment & Intervention." One-third furthered their knowledge of trauma and early childhood, attending trainings like, "Impact of Trauma on Children and Adolescents." Only two attended cultural diversity trainings in the FY 2007-2008. ***Figure 6*** below shows the types of training that early childhood specialists presented to their communities during this program year.

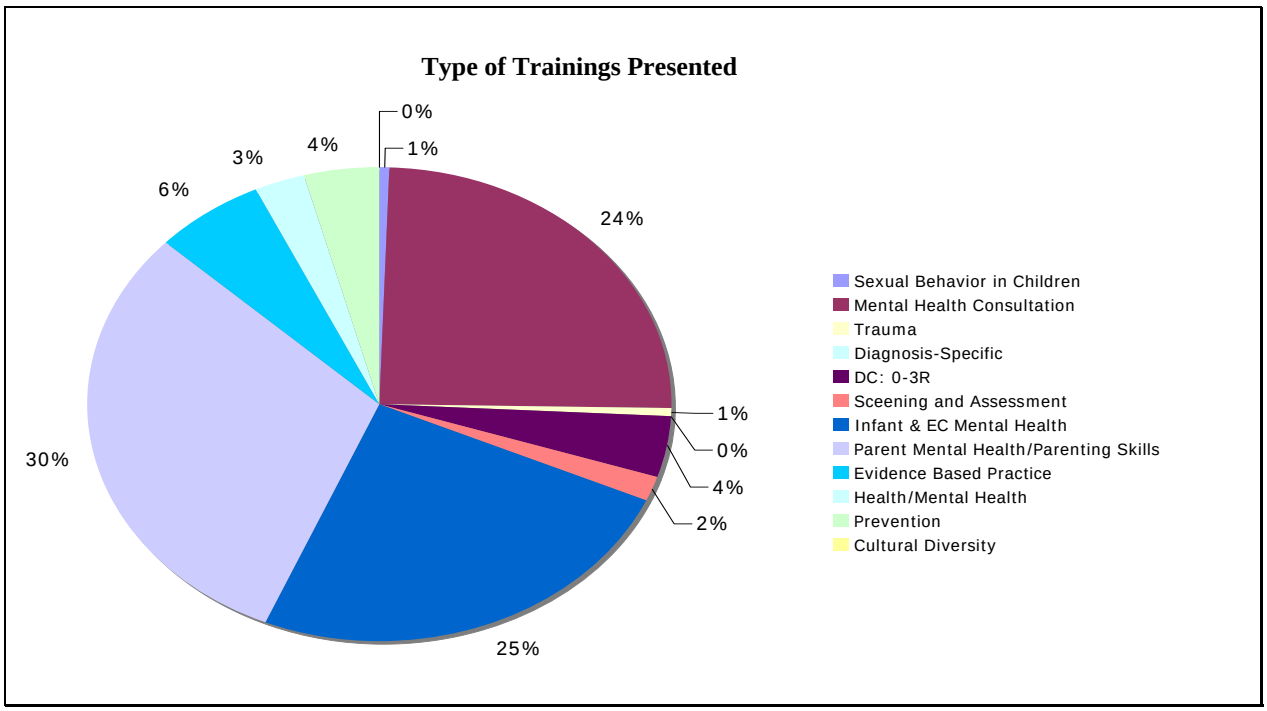


Figure 6 – Types of Training Presented

Outcomes and Results

In order to assess the relative value and effectiveness of the Early Childhood Specialist Program, the following performance outcome measures were identified and used to measure the program results, which are detailed in ***Figure 7*** below.

Outcome	Indicator	Tool	Measure
Change in child functioning	Child's mental health symptoms	CCAR	Overall symptom severity at admit and discharge
	Level of functioning	CCAR	Overall level of functioning at admit and discharge
	Social skills	CCAR	Interpersonal Domain and/or Socialization Domain ratings
	Change in rate of childcare expulsions	PSI Form	Reported on PSI Form
	School readiness	CCAR	Outcome section for under 6yrs old
Change in child/family functioning	Family relationships	CCAR PSI	Family Domain Ratings at admit and discharge and PIR-GAS Parent/Child Interaction
Change in family functioning	Change in rates of out-of-home placements	CCAR	CCAR update completed for "current living arrangement" when placement changes
	Family stress	PSI-Short Form	Overall score
	Family isolation/social supports	CCAR	Social Support Domain rating
	Family sense of competence	CCAR	Empowerment Domain
Increase in early childhood mental health professional development	Trainings attended and delivered	Yearly reports to DMH	
Infuse mental health into early childhood system	Number of screenings/assessments completed	Reports to DMH	

Figure 7 – Performance Outcome Measures

Reporting Requirements

ECSs are required to submit monthly performance reports to the Division of Behavioral Health using a Web-based reporting system developed by the Division of Behavioral Health. ECSs submit data for all children receiving mental health services using the Colorado Client Assessment Record (CCAR), and the Parenting Stress Index (PSI). They also submit a year-end activity report listing all trainings attended and trainings provided, as well as success stories. Results from the various data sources are discussed in the following sections.

CCAR Results

The CCAR is the statewide client information system developed and maintained by the Division of Behavioral Health. The CCAR was developed over 25 years ago. It has been required for all admissions and discharges to the publicly funded mental health system since 1978. It has undergone several major revisions since the start of Colorado's Managed Care program and its use has broadened across systems (i.e., Division of Youth Corrections, Child Welfare, Residential Treatment Centers, etc.).

CCAR has many uses. Initially it was used to count admissions for monitoring performance contracts between the State of Colorado and the community mental health centers. Services data has been collected since 1995 and has been matched with CCARs at the client level for studies and reports. Single variable studies such as ethnicity, income, and diagnosis are commonly done. Trends can be examined for periods ranging from quarterly to several years. However, outcome is most often studied.

In summary, CCAR is well established, well researched, and lends itself well to applied research studies. Its utility in public-funded mental health system is known; it provides information on everything from simple counts to program evaluation data. Linked with services, it can provide information on cost-benefit and other more complex kinds of research questions. Furthermore, CCAR has been used in Arizona, Delaware, Florida, Wyoming, and Ontario.

Recently, this system was updated and several sections pertinent to young children were added. The CCAR was completed by the ECS at intake, and then re-administered at program discharge. The following is a summary of the performance data related the Early Childhood Specialist Program.

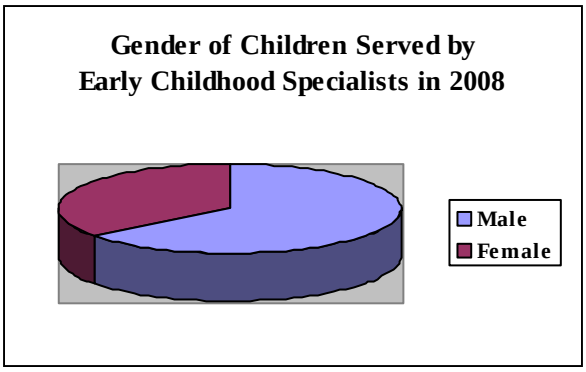


Figure 8 – Gender of Children Served by ECS

The Early Childhood Specialist Program as recorded by the 2008 CCAR database served 217 children. Approximately 64.5 percent of those children were male (n=140), and 35.5 percent were female (n=77) (see ***Figure 8***). The majority of children receiving services were Caucasian (n=147; 67.7 percent). Children ranged in age from 0 to 6.40 years old during FY 2008 with the average age being 4.25 (median age = 4.47). Children exhibited approximately 35 different Axis I diagnoses (e.g., adjustment disorder-unspecified (n= 40), disruptive behavior disorder NOS (n=19), and adjustment disorder with mixed disturbed emotion and conduct (n=18). The most common diagnoses are shown in ***Figure 9*** on the next page.

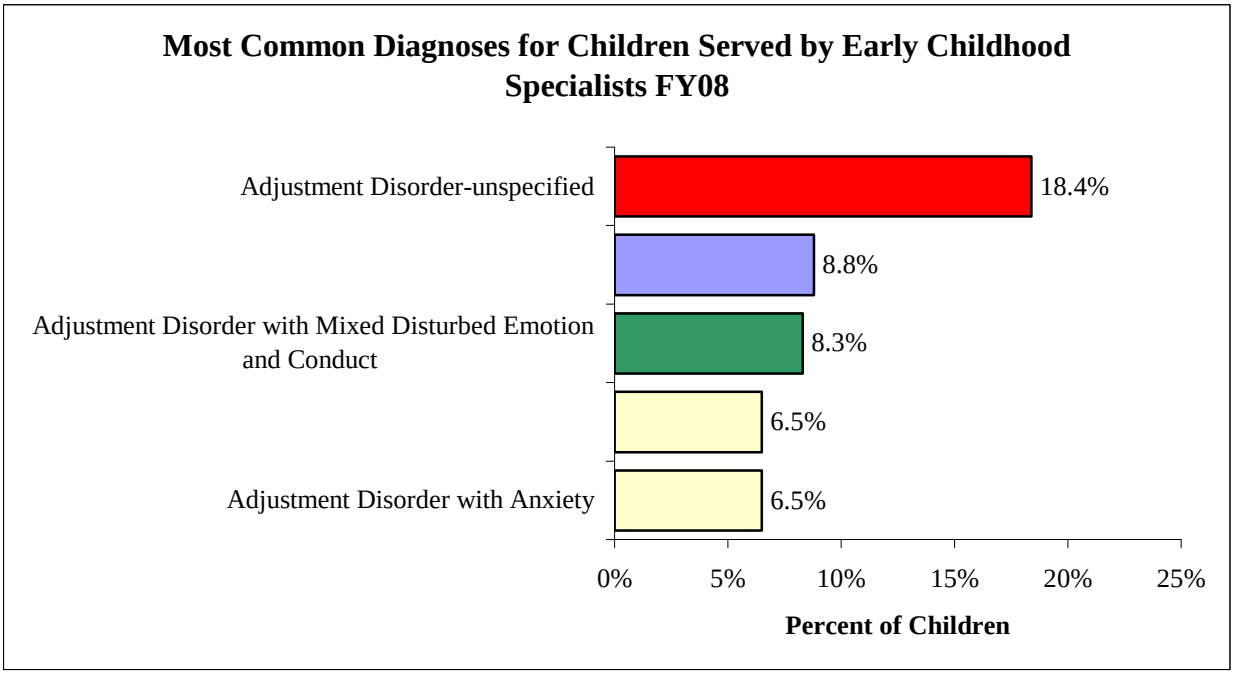


Figure 9 – Most Common Diagnoses for Children Served by ECS

In an attempt to determine program effectiveness, a subset of the total population was examined using CCARs. For children served for 90 days or more in FY 2008, first and last CCARs were compared on nine domains, including socialization, family, social support, hope, empowerment, role performance, overall symptom severity, overall level of functioning, and school readiness. Because the first eight domains were scored using a Likert scale, a paired sample t-test was conducted.

On all eight dimensions, a significant difference was observed in the appropriate direction utilizing a 95 percent confidence interval. In other words, children served through the ECS program showed significant improvement in the domains of socialization, family, social support, hope, empowerment, role performance, overall symptom severity, and overall level of functioning over a time lapse of at least three months (***Figure 10***).

Domain	CCAR	Mean	*t*	Significance
Socialization (n=64)	First CCAR Last CCAR	3.44 2.36	6.18	p < .01
Family (n=64)	First CCAR Last CCAR	3.19 2.67	2.94	p < .01
Role Performance (n=64)	First CCAR Last CCAR	2.47 2.11	2.64	p = .01
Social Support (n=64)	First CCAR Last CCAR	2.08 1.92	2.01	p < .05

Domain	CCAR	Mean	*t*	Significance
Hope (n=64)	First CCAR Last CCAR	2.09 1.81	2.25	p < .05
Empowerment (n=64)	First CCAR Last CCAR	1.73 1.44	2.45	p < .05
Overall Symptom Severity (n=64)	First CCAR Last CCAR	3.63 2.36	8.74	p < .01
Overall Level of Functioning (n=64)	First CCAR Last CCAR	2.81 2.30	3.53	p < .01

Figure 10: Paired Sample Comparison of CCAR Domains

The information contained in Figure 10 is also reflected in ***Figure 11***. On all domains listed the concerns diminished. This means the scores on all these domains decreased showing improvement.

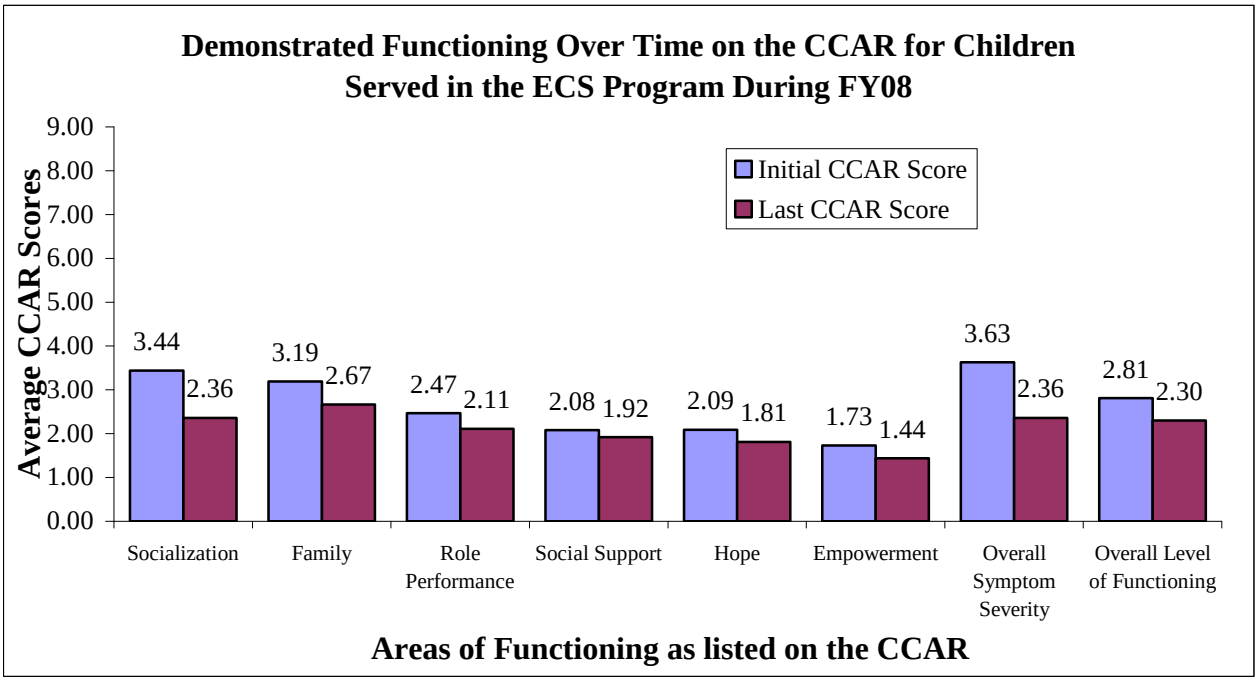


Figure 11 – Demonstrated Function Over Time.
** A decrease in CCAR scores represents an increase in success in that area of functioning.*

In addition, first and last CCARs were compared on the dimension of school readiness. As school readiness was a dichotomous variable, a Chi-square analysis was conducted. Significant differences were demonstrated between the first and last CCAR data, with 69 percent of the participants indicated school readiness on the second CCAR, as compared to 64 percent indicating readiness on the first CCAR.

Parenting Stress Index Results

The PSI/Short Form (SF) (PSI/SF; Abidin, 1995) is a parent-report, 36-item questionnaire completed by parents or caregivers about their experience of stress in relation to parenting their child. The PSI/SF is designed for use with children ages 1 month to 12 years. It takes approximately 10 minutes to complete and can be read at a fifth grade reading level. It has a built-in defensiveness scale to evaluate validity of responses. The PSI/SF has been validated across different groups and cultures, and both the English and Spanish (Solis, 1991) versions were used in this evaluation. There are three subscales that measure parental stress, stress in the parent-child interaction, and difficult child behaviors. In children under 2, elevated scores on the difficult child behaviors subscale are often associated with dysregulated behavior in the child. The three subscales combine for a total parenting stress score. Higher scores indicate higher stress that potentially lowers the ability to appropriately parent the child, and at very high levels may indicate risk for child abuse.

Results of the Parenting Stress Index/Short Form

Parents were asked to complete the PSI/SF during the first couple sessions after a level of rapport was established between the therapist and parent. Parents also were asked to complete a follow-up PSI/SF every six months or upon discharge. Data were collected from July 2006 through August 2008. Of the 17 participating agencies, 11 (65 percent) submitted complete initial and follow-up PSI/SF data (see ***Figure 12***). The majority (83 percent) of the PSI/SFs were completed by mothers, 12 percent by fathers, and 5 percent by grandmothers, stepparents, or foster parents.

	AGENCY	Frequency	Percent
	Aurora Mental Health ECFC	18	14.3
	Jefferson Center for MH	15	11.9
	Larimer Center for MH	29	23.0
	MHC for Boulder/Broomfield	23	18.3
	MHC of Denver	1	0.8
	North Range Behavior Health	11	8.7
	Pikes Peak MHC	15	11.9
	San Luis Valley MHC	6	4.8
	Southwest CO MHC	1	0.8
	Spanish Peaks MHC	4	3.2
	West Central MHC	3	2.4
	Total	126	100.0

Figure 12 – Initial and Follow-up PSI/SF Data

The PSI/SF is sometimes a difficult survey for parents to complete because it asks them to describe their feelings about their child's relationship with them and their own stress as a parent. As a result, some parents feel so anxious that they tend to under-report until they feel safe in the treatment process. The Defensive Responding Validity Scale identifies parents who are under-reporting due to defensiveness or anxiety. When the defensiveness data from

FY 2006-2007 were compared with FY 2007-2008 , 16 percent of the pre-test PSI/SFs were invalid compared with only 7 percent invalid this year, suggesting that clinicians are providing a greater sense of safety and understanding for parents completing the PSI/SF.

The data were combined from FY 2006-2007 and FY 2007-2008 with a total of 126 pre-post PSI/SFs available for analysis, representing 115 children. Of these, 126 pre-post PSI/SFs, the Defensive Responding Validity Scale at pre-test was too low on 14 (11 percent) of them, invalidating the rating. Thus, 112 valid PSI/SFs with pre and post data were used in the following analyses and discussion.

Over half (59 percent) of the 112 parent/caregivers reported total parenting stress in the clinical range at the point in which their children entered treatment.

- Almost half (45 percent) of the parents reported a clinically elevated level of stress (> 85 percentile) in the parent-child relationship, including feelings of being rejected by or alienated from the child. A quarter (25 percent) of the parents reported very high scores (> 95 percentile) suggesting that the parent-child bond is either threatened or has never been adequately established, thus identifying a sample of children who are at high risk of attachment problems.

- 62 percent of the parents reported a significant level of stress regarding the child's behavior (> 85 percentile), indicating that the child's behavior is more difficult to manage than is typical. In very young children, 0-3, this suggests significant problems with regulation, while with children older than two; problems may be related to the parent's difficulty in managing the child's behavior as well as problems with the child's emotional regulation.

- 43 percent of the parents reported a significant level of stress in the parenting role (> 85 percentile), particularly related to feelings of incompetence, limited ability to meet the demands of parenting, emotional distress, and or limited social support.

At the time of the follow-up PSI/SF rating, 72 percent were discharged from treatment and 28 percent are in ongoing treatment. They were seen by the ECS for an average of 24.3 weeks (STD dev = 12.1), with a range of 4 to 59 weeks.

The following significant clinical improvements were identified

- The quality of the **parent-child relationship** was significantly improved at the follow-up testing, going from 46 percent to 33 percent in the clinical range after an average of six months of treatment. The change in mean scores for relationship stress was statistically significant (see ***Figure 13*** on the next page).

- The proportion of parents no longer reporting in the very high-risk range for relationship stress was lowered from 25 percent reporting a very high level of stress in the parent-child relationship at pre-test, compared with 18 percent at post-test.

	Pre-Treatment Mean (SD)	Post-Treatment Mean (SD)	F-value	df	P*	ES**
Parental Distress Subscale	30.6 (8.0)	26.6 (7.6)	33.8	1, 111	.000	.23
Parent-Child Relationship Stress Subscale	25.4 (6.7)	22.7 (7.4)	15.4	1, 111	.000	.12
Difficult Child Behavior Subscale	35.3 (8.9)	30.9 (8.5)	28.2	1, 111	.000	.20
PSI/SF Total Stress	91.5 (19.5)	80.4 (19.5)	40.9	1,111	.000	.27

Figure 13 - PSI SF Intervention Effects
Note. *two-tailed test; **ES = effect size using Eta^2

This is a very important finding when looking at the mental health of young children.

- There was a decrease in stress related to the **parental experience of the child's behavior**, with 63 percent of the parents reporting that their children's behaviors were in the clinical range at pre-treatment, compared with only 38 percent at the six month follow-up or discharge point. The change in mean scores for difficult child behavior was statistically significant.

- **Parental stress** was significantly reduced (from 43 percent to 23 percent in the clinical range) indicating a significant improvement in parental feelings of competence, emotional functioning, and/or social support. The change in mean scores for parental stress was statistically significant.

The overall mean score for **total parenting stress** was significantly lower at post-test, with an effect size of .27, indicating a decrease in parenting stress in general. The proportion of parents reporting clinically elevated levels of parenting stress decreased from 59 percent to 34 percent.

Repeated-measures analyses of variance (RANOVA) were used to compare the pre- and post-treatment PSI/SF scores using a two-tailed test and probability level of .05. Effect sizes were based on $eta^{2.}$

Discussion of PSI/SF Results

These data support that young children can be in significant distress behaviorally, emotionally, and in the context of the parent-child relationship, placing their future development and functioning at risk. Although the treatment effects noted in this report are not as dramatic as the effects noted during the first year of the project (overall effect size of .52), the changes are still significant, with an almost 50% reduction in parenting stress, almost 40% reduction in difficult child behavior, and almost 30% reduction in high risk problems in the parent-child relationship.

A survey of the clinicians across the different agencies suggests that we are now seeing more severe and complex cases, which may be contributing to the lower effect sizes. The actual change in mean scores from pre-test to post test were very similar between the two reports, but the standard deviations for the present report are greater, supporting the clinician reports of greater variability and complexity in the cases.

Stories of Success

The Early Childhood Specialists (ECS) reported various success stories related to both client interventions and system coordination during the 2006-07 fiscal year. Many reported positive client outcomes specifically as a result of their ability to accurately and appropriately diagnosis clients aged 0-5 using the DC: 0-3R and provide effective evidenced-based early childhood interventions. During the 2007-08 fiscal year, the ECS's collaborative efforts with other agencies and systems have also been highly successful, producing positive outcomes on behalf of children 0-5 and their families. Stories of successful advocacy, mediation, treatment interventions, and skill development with children, families, and their involved systems resulted in numerous successful transition for clients with severe behavioral problems and/or socio-emotional developmental issues into mainstream classrooms and their increased ability to self-regulate, develop relationships, and focus on learning, furthering future successes in young clients' lives.

Client Success Stories

"John" is a 4-year-old boy who was referred to the mental health center due to challenging behaviors at home and at his childcare center. The client was bullying other children, hitting, punching, throwing things, and overall defiant towards authority figures. The client's parents and teacher were overwhelmed and did not know what to do. The client was opened to the center to receive Child Care Consultation services. Parents were given interventions to use at home such as ignoring, using visual cues, frequent warnings, reward charts, and to develop one on one time with the client to promote loving relationships. Consultation services provided support for the staff at the child care center as well as interventions to help the client control his emotions, thus decreasing aggression. Communication and consistency between the client's parents and the center were increased to help develop structure and stability in both environments for the client. After 2-3 months both the client's parents and childcare center reported a decrease in the client' s aggression and defiance as well as the client being more enjoyable to be around. The client began to succeed not only on a social emotional level in the classroom and at home but he also began to be successful educationally as well; learning how to write his alphabet and his name. The client's case was closed successfully with no further services needed.

"I began working with a little girl that was on the verge of being kicked out of preschool. The major concern at intake was her very impulsive and "hyper" behavior, inability to self-soothe, and her severe tantrums that included screaming, crying, throwing herself on the floor, kicking, and running away. Her father stated that client had problems with tantruming since age 1, but that they have progressively got worse. She was also physically aggressive with others out of the blue and appeared to be fixated on certain things/activities. Initially, father was being told by several different people that client likely would meet criteria for an Autism diagnosis. However I saw that client could be social and even initiated social interaction when she was not over stimulated. It became evident that she was having issues with being over stimulated and this appeared to be what caused her impulsivity and running. I began home services for the family, helped the family access Occupational Therapy services, and worked with the preschool on safety plans. Both the OT and I agreed that client's behaviors were better accounted for by severe sensory issues. After completing mental health services the client was able to learn to

control her impulsivity, quit running from adults, her tantrums decreased, and she began to work on appropriate social skills and was also successfully discharged from her medications and was doing very well in a mainstream classroom. If it had not been for the training that I have received on DC:0-3R and other training that has been offered to me through the E.C. Program I would not have been aware that sensory issues often are misdiagnosed as a variety of other mental health issues, such as ADHD, Autism, etc. I also would not have known what type of recommendations to give to parents, childcare providers, and school personnel regarding sensory issues. We have had at least three additional children come through the doors who have had similar issues with sensory problems and all three have been misdiagnosed and shown little to no success with previous mental health treatment. As a team we have become more aware of the questions we need to ask to determine if behaviors are better accounted for by sensory issues or if sensory issues are co-occurring and we are learning ways to help children with sensory issues."

Systems Success Stories

"The second year of the Early Childhood program at our mental health center has been on of growth and transition. In terms of programmatic successes one of note is the collaborative work with one of our early childhood councils. This collaborative relationship has led to early childhood mental health issues being included in the strategic planning of this organization and the education of the council members about the far reaching implications of early childhood mental health in our community."

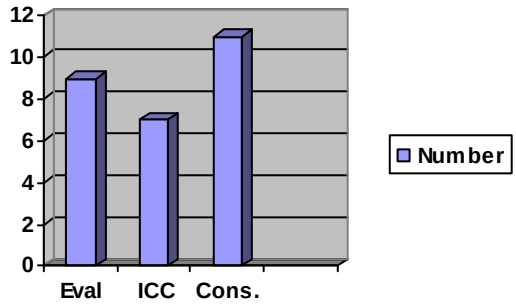
"Our Early Childhood Team has undergone some positive transitions over the past year, which has resulted in a more comprehensive system of care. The ECS team moved into a new building in November of 2007, housed adjacent to the pediatrics office that has recently become part of the mental health center. In this transition we were able to provide a friendlier and developmentally appropriate environment for families and children. Families reported to us feeling more comfortable in their first appointment with us because they were already familiar with the pediatrician's office, as their children have already been seen in our building. This increased referrals for Early Childhood Mental Health though mental health consultation and screening, and provided a family friendly environment of integrated care for our consumers. In addition, an agency providing Occupational Therapy is now housed with Early Childhood Services and provides Therapy to the children with Medicaid, but also provides in-service trainings to our therapists to help meet our child consumers' sensory needs. Having a multi-disciplinary treatment team in our environment enhances the care, creativity and resources to help us best meet the various needs of our consumers through collaboration and consultation. It is within this setting that children receiving Early Childhood Specialist Funding for services are also being seen and benefiting from the new and improved therapeutic environment. With this funding, we were able to serve an average addition of at least 12 children each month over the past year."

System Coordination

The Specialists are asked to coordinate with *Part C,* Early Intervention Colorado and the Early Childhood Councils. This year a survey was completed to determine if in fact this was occurring. In large part almost all centers are coordinating with these two efforts.

Part C, Early Intervention Colorado

What ways are you working with Early Intervention Colorado?



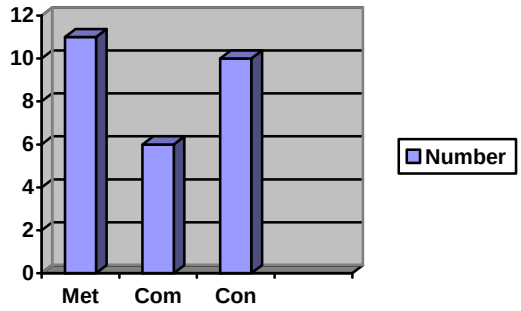
Eval= evaluation and assessment
ICC= member of the Interagency Coordinating Council
Cons= consulting when requested

Others mentioned:

- In-home service provider
- Share resources and training
- Love and Logic Parenting
- Participate in IFSP staffings
- Provide intervention services

Early Childhood Councils

What ways are you working with Early Childhood Councils?



Met= meetings
Com= serve on mental health committee
Cons= consulting when requested

Others mentioned:

- Collaborate on funding opportunities
- Our Development Director is involved with the council
- Provide training to council members
- Serve on a board
- Member of Board, finance chair committee chair
- Early Childhood Advisory Team Representative

Discussion and Summary

Significant progress continues to be made on all five outcomes. The number of children and services increased during this past year. Each outcome will be listed and results highlighted.

Change in Child Functioning: Children served by the ECS showed significant improvement in the areas of Socialization, Role Performance, Overall Symptom Severity and Overall Level of Functioning. Stories also confirm improvements in child functioning allowing them to remain in their childcare settings

Change in Child/Family Functioning: The Early Childhood Specialist Program positively influenced child and family relationships. The Parenting Stress index showed that the quality of the parent-child relationship was significantly improved during the course of specialized early childhood services. Stories also describe significant changes in child/family functioning.

Change in Family Functioning: Parents experiencing very high parenting stress dramatically reduced as a result of their and their child's involvement in the Early Childhood Specialist Program. The proportion of parents reporting clinically elevated levels of parenting stress decreased from 59% to 34%. Although the results demonstrated through the Parenting Stress Index are not quite as strong as last year's results they are still significant. It appears from the data and the Specialist's reports that they are working with more difficult and complex families. In addition, improvements in family functioning were demonstrated by the CCAR results with improvements in the family's sense of social support, hope and empowerment.

Increase in Early Childhood Professional Development: The ECS knowledge was advanced through participation in 170 trainings provided in their community and by the state. However the specialists conducted 174 trainings, more than twice as many as last year. This represents a growing expertise and the community recognition of that expertise.

Infuse Mental Health into Early Childhood System: It is clear from monthly reports that ECS are providing services in a number of settings. Over 50% of the consultation hours are provided in childcare and Headstart. Most specialists are involved with Part C in their communities. A survey this year revealed that most specialists are providing consultation, evaluation and assessment. Specialists are also involved in their local Early Childhood Councils finding ways to increase services for all children in their region.

In conclusion, ECS have provided substantially more services this year. Significant results have been achieved in each of the program's five outcomes. It is anticipated that early childhood mental health programs will continue to develop in communities across the state. While many more young children are receiving services there are still many more that are unserved.

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