

ELEMENTARY CORRESPONDENT

EVALUATION REPORT ON THE SECOND YEAR OF THE MOBILE OUTREACH SERVICES TEAM MODEL (MOST) IN AUBURN'S ELEMENTARY SCHOOLS

*A GRANT TO AUBURN ENLARGED CITY SCHOOL DISTRICT
U.S. Department of Education
Elementary and Secondary School Counseling Program*

Volume II, Number 2 (November 2007)

During the Second year of Service Delivery, Elementary MOST Services are Positively Promoting the Social and Emotional Development of Students in Grades K-5

Introduction

In October 2005, the Auburn Enlarged City School District (AECSD) received a 3-year grant to implement a school-based mental health intervention from the U.S. Department of Education, Elementary and Secondary School Counseling Program. The funded project, known as Elementary MOST (Mobile Outreach Services Team) is being implemented by AECSD in collaboration with the Partnership for Results, an interagency entity in Cayuga County that specializes in evidence-based programs for children and youth. The project operates in all five of Auburn's elementary schools: Casey Park, Genesee Street, Herman Avenue, Owasco, and Seward.

MOST is a fully-articulated, school-based model for delivering mental health and other support services. It was developed by the Partnership for Results and the Cayuga County Community Mental Health Center. Critical features of this school-based intervention include:

- ❑ systematic screening of students by teachers using the Observation Checklist;
- ❑ multi-disciplinary, comprehensive assessment by clinicians using the Well-Being Assessment Instrument (known as the "WellBAT");
- ❑ monitoring service delivery with the Partnership's interagency database (CHARI – Children At-Risk Interagency database);
- ❑ development of integrated service plans for clients and their families; and
- ❑ use of evidence-based treatment modalities -- Child-Centered Play Therapy (CCPT) and Cognitive Behavioral Therapy (CBT) -- depending on the maturity and clinical needs of the client.

The evaluation of Elementary MOST is being conducted by Youth Policy Institute, Inc. (YPI), a not-for-profit research and evaluation agency located in central New York. YPI is

employing a comprehensive evaluation model, examining, among other issues, the programmatic context, fidelity of implementation to the essential components of the model, involvement and response of families, and outcomes of the program.

The *Elementary Correspondent* is appearing periodically during the course of the project to provide project staff and community members with insights on the project's implementation, administration, effectiveness, and outcomes. In the first edition of the *Elementary Correspondent* (December 2006), YPI reported that the initiative was achieving impressive results during its first year of operation. Appropriately qualified staff were employed and thoroughly trained in a timely fashion on the model's procedures, assessment instruments, and database. Project administrators put in place the salient elements of the MOST model. During the first year of operations, the project served a client population with complex service needs that were likely to benefit from the intervention. Program outcomes during the first year were very positive, and there was little doubt that Elementary MOST was, to a substantial degree, promoting the positive social, emotional, and educational development of participating students.

A second edition of the *Elementary Correspondent* explored the important issue of fidelity to established practices by evaluating the extent to which Elementary MOST clinicians were adhering to the salient elements of Child-Centered Play Therapy (CCPT), an evidence-based therapeutic intervention used with the project's younger clients. Elementary MOST clinicians, it was found, are implementing the intervention with a consistently high degree of adherence to the therapeutic model. This success in rolling out a complex model, it was concluded, was the result of an effective

preparatory training, routine technical assistance in critical elements of a highly structured MOST model, and ongoing clinical supervision and training. A forthcoming *Elementary Correspondent* evaluation report will examine adherence to Cognitive Behavioral Therapy (CBT), the therapeutic intervention frequently used with older elementary school students.

A third edition of the *Elementary Correspondent* (August 2007) assessed the role played by parents and caregivers in MOST services and their satisfaction with the program. Parents and caregivers responding to a survey indicated a high level of satisfaction with all the salient components of the MOST program. It was evident, from their responses, that MOST counselors made extensive and effective efforts to thoroughly explain the program and to encourage parental involvement at various levels, including monitoring of progress, routine interactions with the therapists, use of supportive strategies recommended by therapists, and accessing ancillary services. Parents and caregivers expressed high levels of satisfaction with the program as a whole and with the quality of the staff in particular. They perceived that the intervention made significant inroads into promoting the positive attitudes toward school and improved intra-familial interactions. They also overwhelmingly reported that MOST had improved the social and emotional well-being of their children.

From the first to the second year of the Elementary MOST project, the number of staff therapists increased from 4 clinicians (3.5 fte) to 6 (5.5 fte). With this increased staff size, a clinician was assigned to Casey Park Elementary, which meant that all of Auburn's 5 elementary schools were being served by the project. A credential review indicates that all project therapists have appropriate educational backgrounds (Masters-level credentials) and substantial experience (at

least 3 years) providing services to children in the primary school years. All Elementary MOST clinicians participate in weekly clinical supervision and training sessions. These serve to improve fidelity to core components of the program model, to best clinical practices and protocols, in general, and to the evidence-based therapeutic practices of Child-Centered Play Therapy (CCPT) and Cognitive Behavioral Therapy (CBT), in particular. Elementary MOST clinicians also received, on an ongoing basis, technical assistance in the core components of the program model, including use of the Observation Checklist screening protocol, the Well-Being Assessment Instrument, the Partnership's inter-agency database (CHARI), and the development of integrated service plans.

This edition of the *Elementary Correspondent* will evaluate three critical facets of the first two years of Elementary MOST service delivery:

- I the extent to which Elementary MOST- has reached its intended target population;
- II the level of fidelity to the program model, now that the project is fully implemented; and
- III the impact of the program services to date.

I. Target Population

From mid-January 2006, when program services became available, through the middle of September 2007, 222 students became Elementary MOST clients. Of this number, 69 of the cases were still open and 153 closed by mid-September, 2007. In 60% of the closed cases (N = 91), students and their families completed the entire intervention as planned, participating in two comprehensive assessments (at the

beginning and end of the intervention), 21 weeks of school-based counseling services for the student, and the development of service integration and discharge plans. *Given the robustness and extensiveness of the intervention, this is a high completion rate.* Twenty-four percent of the closed cases (involving 36 students) were closed before services were completed because either the parent and/or the student would no longer participate in the intervention. Another 17% of the closed cases ended before completion either because the service needs of the student were too acute to be served by the intervention, or, most typically, because the family no longer resided with the school district's jurisdiction. *There was no statistically significant variation in this pattern of case completion by school, age, or gender.*

In one important respect, the students participating in the program are not typical of the population attending the target primary schools. *The ratio of males to females in the Elementary MOST program is approximately 2:1* (i.e. two-thirds of all participants are male). This predominance of male referrals is statistically significant (at the $p < .05$ level) and is occurring in all participating schools. Female students do not comprise more than 40% of the Elementary MOST caseload in any of the Auburn elementary schools (and 32% overall). It is possible, as is commonly proposed (but not verified) in the research literature, that an over-representation of males in a student client population is the result of two factors: (1) boys, it is argued, are more likely to have externalizing behavior problems, such as physical aggressiveness, and girls are more likely to have internalizing problems; and (2) the tendency for externalizing dysfunctions to be referred by school staff for services more often than other disorders.

For Auburn's elementary school students, this explanation of a predominance of boys in the MOST caseload cannot be verified in a scientific manner. Neither YPI nor AECSD have implemented school-wide or randomized diagnoses of elementary school students to gauge levels of externalizing and internalizing problems; to do so is costly and would require that cumbersome research protections be implemented. As a result, it is not possible to know whether more elementary school boys than girls have impulse control or aggressivity problems or whether more girls than boys suffer from excessive shyness or anxiety. What is known is that *externalizing and internalizing problems, while both common, are not the most frequent diagnoses made by clinicians.* This can be seen in an analysis of the WellBAT instrument, which has 37 diagnostic rubrics. According to the WellBATs done soon after intake, serious externalizing problems (a WellBAT score of 2) are the third most common presenting problem, occurring in 41% of the cases for both genders combined; however, serious internalizing problems are also common, occurring in 34% of the cases. Externalizing problems that are either moderate (WellBAT score of 1) or serious occur in 60% of the cases, which, while fairly common, is far less frequent than other risk factors occurring among the student clients (see pages 6 and 7 below).

There is significant evidence that externalizing problems, among Elementary MOST clients, are more common among boys, although not to such a degree to explain the significant gender imbalance among clientele. At intake, 66% of male clients had moderate to serious externalizing issues, compared to 50% of female clients. For both genders, this diagnosis occurred as one of a cluster of other problems or risk factors (Table 3). *Girls and boys in the Elementary MOST caseload had similar*

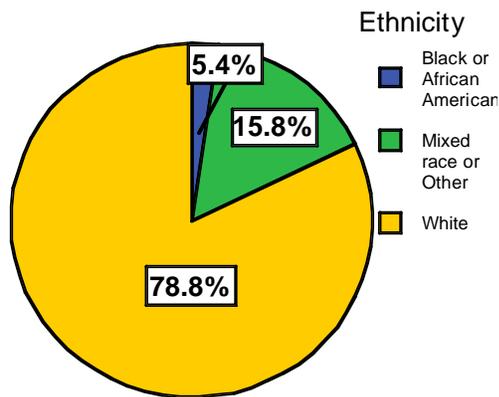
levels of internalizing problems. At intake, 49% of male clients had moderate to serious internalizing issues, compared with 50% of female clients. There was, in sum, no clear indication of a predisposition to serve boys with externalizing problems and girls with internalizing problems.

It is difficult, given the foregoing, to conclusively explain why so many more boys than girls are being referred for Elementary MOST services. Interviews with clinicians and school staff only shed a pale light on the problem. As confirmed by WellBAT data, school staff are clearly concerned with finding ways to manage externalizing issues, and, at least for the client population, these issues occur somewhat more frequently among boys than girls. However, school staff members are also clearly cognizant of internalizing issues, and one set of presenting problems is not excluding the other, nor is either gender specific. As noted in the first *Elementary Correspondent*, the screening protocol used by teachers, the Observation Checklist, is generally being administered *after* the decision to refer is made by the school. The Checklist is designed to promote gender neutral referrals. Were it used to initiate referrals, this rather strong orientation to serving male students in participating schools could very well be addressed. It would also be advisable for this issue to become the subject of discussion among teachers and student support staff at the participating schools to identify whether there is an explicit or implicit assumption that boys are more in need of services or more effectively served by Elementary MOST counseling and service integration than girls.

The racial distribution of Elementary MOST participants indicates a slightly higher level of access to the program among students of color than among white students. Interviews with project and school staff and providers in

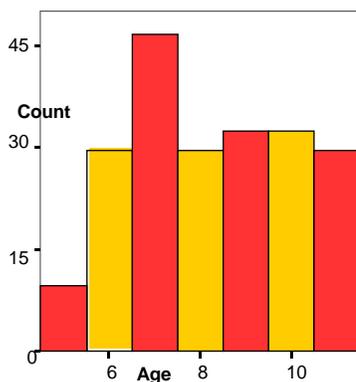
the community indicate that this is attributable largely to the extent to which service needs are unmet in the community of color. About 21% of students served in the program are of color, as opposed to 11.5% of Auburn’s population (see **Figure 1** below; U.S. Census, 2000).

Figure 1
Racial/Ethnic Distribution of Elementary MOST Participants (N=222)



As is indicated in **Figure 2** below, the participants are relatively evenly distributed between the ages of 5 and 11. There is a slight under-representation of the very youngest primary school students, but the age variation has no statistical significance.

Figure 2
Age Distribution of Elementary MOST Participants (N=214)



For the three schools with full-time therapists since inception of Elementary MOST service delivery – one school (Owasco) lagged behind the other two (Herman Avenue and Seward). As indicated in **Table 1**, the therapists at Herman Avenue and Seward served the same number of students since January 2006 (60 children) and worked with 58% more clients than the MOST counselor at Owasco. It is important to note, however, that during the last months of the 2006-2007 school year and at the outset of the 2007-2008 school year, the number of referrals from Owasco has increased, reaching a level equivalent to Herman and Seward. At the beginning of the 2006-2007 school year, the second year of the project, additional funding permitted the project to supplement the half-time MOST counselor at Genesee with a full-time clinician and to initiate MOST services at Casey Park with a full-time clinician. MOST counselors in these two elementary schools soon had sufficient referrals to maintain caseloads of approximately 23 students each, which, according to the intervention’s targets, constitutes full caseloads.

Table 1
Distribution of Elementary MOST Participants by School District

Elementary School	Frequency	Percent
Casey Park	25	11.1%
Genesee Street	42	18.7%
Herman Avenue	60	26.7%
Owasco	38	16.9%
Seward	60	26.7%
Total	225	100.1%

Over the last eleven months covered by this report (November 2006 through September 2007), all the Elementary MOST clinicians were able to maintain full caseloads. This was a significant departure from the first ten months of service delivery, when some, but not all clinicians, had full caseloads.

Interviews with school and project staff indicate this higher level of activity was the result of several factors: the persistent and effective efforts by the Project Director to encourage adherence by school administrators and staff with project referral procedures and project caseload targets; technical assistance by staff from the Partnership for Results to MOST clinicians and school staff, including routine reports about MOST counselor activities and on-site refresher courses in the model's referral protocols; and a growing familiarity at each campus with this form of school-based assessment and therapeutic service.

In terms of household incomes, the families of students accessing Elementary MOST services are somewhat less well off than other families in Auburn, particularly at the lower end of the income spectrum. The median household income of participating families is approximately the same as that for Auburn as a whole (\$34,000 as of the year 2005, according to recent U.S. Census data). Of the Elementary MOST participants, 58% of live in families with household incomes below the median; 36% of the children receiving Elementary MOST services live in households with incomes below \$20,000 per year, compared to 25% of Auburn's children in the general population.

Administrations of the Well-Being Assessments (WellBATs) at the outset of each case indicate that the clients and their households have complex service needs which will benefit from delivery of the core elements of the program: multi-disciplinary assessment; CCPT or CBT counseling; involvement of the household in the development an integrated service plan; and comprehensive management of the case by the clinicians. The initial administrations of the WellBAT indicate that students served by Elementary MOST are affected by a wide

range of adverse circumstances that need to be addressed in order to mitigate the impact of risk factors, reduce self-destructive behavior, and promote the social, emotional, and educational development of the participants.

In the open and closed Elementary MOST cases through September 15, 2007, therapists found that *clients were facing risk factors across multiple domains*. Participants had risk factors assessed by clinicians as moderate to severe in an average of 18 of the 37 WellBAT subscales, and assessed as severe in an average of 6.7 subscales.

For clients in the Elementary MOST program, the WellBAT the subscales that were most frequently scored by clinicians at the highest level of severity involved recent client experiences with grief and trauma, issues of excessive reactivity and poor adaptability, and externalizing problems. To some extent, the etiology of these issues can be seen in the pervasive risk-taking behaviors and other dysfunctions by family members. These subscales rated as "severe" are as follows, in declining order of frequency:

1. *Stressful events* - 56% of the Elementary MOST participants (the client experienced a stressful event within the last year such as parent divorce, death of a loved one, and so on);
2. *Temperament problems* – 46% of participants (high reactivity and poor adaptability)
3. *Externalizing behaviors* – 41% of participants (impulse, anger, and/or aggressivity problems);
4. *Expectations for behavior/family management style* – 40% of participants (chaotic family environment; discipline is lacking, inconsistent, or tends to be extreme);

5. *Parent or sibling history of substance abuse* – 40% of participants;
 6. *Parent or sibling history of mental illness* – 39% of participants;
 7. *Parent or sibling history of criminal activity* – 38%;
 8. *Family mobility* - 37% of participants (two or more moves within the last three years);
 9. *Problem solving self-efficacy* – 35% of participants (inability to handle problems they confront and tend to feel most problems are overwhelming);
 10. *Internalizing problems* – 34% of participants (anxiety, mood, and depression disorders).
8. *Family belonging* - 85% (isolation from the family; an inability to identify ways family members care for each other);
 9. *Stressful events* – 84%;
 10. *Relationship with parent(s)/guardian(s)* – 84% (lack of availability of parent/guardian to discuss problems or provide guidance).

Aside from similar levels of internalizing problems, as noted above, male and female clients had configurations of problems and dysfunctions, that, while rank-ordered differently, were quite comparable across diagnostic categories, as indicated in **Tables 2 and 3**.

Table 2
Rank Ordering of “Serious” WellBAT Ratings by Gender

The service needs of Elementary MOST participants are pervasive, from issues of social competence and problem solving self-efficacy to those of family dynamics. The need for comprehensive, coordinated interventions are readily apparent in the initial WellBATs. At least 4 of 5 clients had either a “moderate” or “severe” level of service needs in the following 10 WellBAT subscales:

1. *Social competence* - 100% of the Elementary MOST participants (inability to read social settings and determine the appropriate responses);
2. *Problem solving self-efficacy* – 99%;
3. *Temperament problems* – 94%;
4. *Self-direction* – 91% (uncertainty about goals and limited, or no, interest in setting them);
5. *Expectations for behavior/family management style* – 90%;
6. *School self-efficacy* – 88% (inability to feel successful in school);
7. *Relationships with peers* – 86% (tendency to alienate themselves from peers because they were intimidated or physically victimized);

WellBAT Ratings (Serious), Male Clients	% of Male Elem. MOST Clients (N= 134)	WellBAT Ratings (Serious), Female Clients	% of Female Elem. MOST Clients (N=63)
Stressful event	49%	Stressful event	71%
Temperament problems	46%	Parental/ Caregiver discord	67%
Externalizing problems	41%	Expectations for behavior/ family mgt.	48%
Social competence	39%	Family mobility	46%
Problem solving self-efficacy	37%	Internalizing problems	46%
Expectations for behavior/ family mgt.	37%	Temperament problems	46%
Family history of substance abuse	37%	Family history of mental illness	44%
Family history of mental illness	35%	Family history of substance abuse	44%
Family history of criminal activity	35%	Family history of criminal activity	44%
Family mobility	32%	Externalizing problems	35%
Internalizing problems	28%	Relationships with peers	33%

Table 3
Rank Ordering of “Moderate” or “Serious”
WellBAT Ratings by Gender

WellBAT Ratings (Moderate or Serious), Male Clients	% of Male Elem. MOST Clients (N= 134)	WellBAT Ratings (Moderate or Serious), Female Clients	% of Female Elem. MOST Clients (N=63)
Social competence	100%	Expectations for behavior/ family mgt.	100%
Problem solving self-efficacy	97%	Parental/ Caregiver discord	100%
Temperament problems	92%	Problem solving self-efficacy	99%
Self-direction	90%	Family belonging	99%
School self-efficacy	87%	Temperament problems	98%
Relationships with peers	85%	Social competence	98%
Expectations for behavior/ family mgt.	84%	Stressful events	97%
Stressful events	78%	Self-direction	97%
Family belonging	78%	School self-efficacy	92%
Relationship with parents	78%	Family mobility	92%

The severity of problems and risk factors among Elementary MOST clients at intake varies significantly by income, but not by gender. An accurate proximal variable for severity of the presenting issues is the total WellBAT score; that is, the sum of all WellBAT ratings (i.e. scores of 0, 1, and 2 for all 37 rubrics). As indicated in **Table 4**, poverty is a strong predictor of intensity of service needs; the poorer the household, the more severe the problems encountered by the Elementary MOST client ($p < .001$).

Table 4
Distribution of Total Client WellBAT Scores at
Intake by Income (N=156)

Annual Household Income	Mean WellBAT score	N	Standard Deviation
< \$5,000	29.27	15	9.97
\$5,000- \$9,999	28.94	18	8.62
\$10,000-\$14,999	30.80	10	8.95
\$15,000-\$19,999	23.53	15	10.21
\$20,000-\$24,999	32.06	16	8.08
\$25,000-\$34,999	22.44	21	6.85
\$35,000-\$49,999	25.30	20	8.73
\$50,000-\$74,999	23.33	24	11.27
\$75,000-\$99,999	18.00	9	12.49
\$100,000	10.13	8	6.79

This not altogether surprising correlation between poverty and extent of service need is the result of several factors. Poorer families tend to have more limited access to support services. Poverty in and of itself is a significant stressor, associated with frequent mobility, a higher percentage of families with single parents working multiple jobs, and other issues that serve to undermine the resilience of children.

While poverty is related to severity of problems and dysfunctions, gender is not, as is indicated in **Table 5** below. Female clients had, on average, slightly higher total WellBAT scores, but the 6% difference in scores is not statistically significant.

Table 4
Distribution of Total Client WellBAT Scores at
Intake by Gender (N=156)

Gender	Mean WellBAT score	N	Standard Deviation
Male	24.55	128	10.68
Female	26.06	52	9.19

II. Level of Fidelity to the MOST Program Model

It is now well established that, for school-based counseling programs, in particular, and therapeutic interventions, in general, the higher the level of fidelity to proven practices and procedures, the greater the level of program efficacy. A critical part of the YPI evaluation is to gauge the level of fidelity to the Elementary MOST model. Two sources of data for this phase of the evaluation: information stored in the Partnership's CHARI (Children At-Risk Information) database, and staff interviews. These indicate, as during the first year of implementation, a continued high level of fidelity to the Elementary MOST model across its salient protocols and procedures.

Thorough preparatory and ongoing training of staff in program protocols and procedures is a key element of establishing fidelity. Interviews with program clinicians and clinical supervisors indicate that they are all well versed in the consent and waiver process, assessment, treatment, referral and case management techniques of the Elementary MOST program. The training has been ongoing, with weekly case supervision, intensive induction procedures for incoming staff, and additional technical assistance and supervision by experienced clinicians in CCPT and CBT techniques and by the Partnership's senior staff.

CHARI: Review of CHARI's administrative logs indicate that the inter-agency database, which is designed to structure the data collected by the clinician for analytic purposes, to ensure consistency of programmatic effort and data integrity, and to enhance accountability, is being used an average of 1.5 hours per week. This level of database use is an indication that CHARI is

being used as intended, a conclusion confirmed in interviews with the Project Coordinator and the Partnership's MIS Director.

Observation Checklist: The Observation Checklist is a research-based lay screening tool designed to be used by school staff who know students well. It was developed in order to increase the likelihood that instructional staff would refer children who were eligible for the kind of assessment and counseling services provided by Elementary MOST. As indicated above, the instrument is not currently used as intended; rather it is only administered by teachers *after* school leaders and student support staff decide to refer a child for Elementary MOST services. Nonetheless, the Checklist plays an important role. When administered (even after the fact), it serves to hone the observational skills of school staff regarding behaviors linked to mental health disorders, cognitive disabilities, and exposure to violence issues. It also presents Elementary MOST clinicians with valuable pre-diagnostic information that helps them make accurate diagnoses. A Partnership study of the screening protocol indicates that the reliability and validity of a particular type of observation increases substantially if it is recorded in at least 2 Checklists. For open and closed cases, from January 2006 through mid-September 2007, 92% had two or more Observation Checklists; three-quarters of the cases had exactly two Checklists.

Comprehensive multi-disciplinary assessment using the Wellbeing Assessment Instrument (WellBAT): The Elementary MOST model requires periodic multi-disciplinary assessment using the WellBAT to ensure effective, comprehensive treatment and discharge planning. The program model initially required that clinicians first assess clients within the first 90 days; after an

extensive review of WellBAT data by project staff, it was decided, as part of an effort to ensure that treatment plans were established as early in the intervention as possible, to require that MOST Elementary clinicians complete the first WellBAT in 30 days. For all cases open at least 30 days, *initial WellBATs completed in a timely manner*. Clinicians are also required to administer the WellBAT before the case is closed, which permits the development of a thorough discharge plan. Analysis of CHARI data, coupled with staff interviews, indicate that the final WellBATs were completed in a timely fashion and used, as intended, to develop comprehensive discharge plans for the Elementary MOST clients.

Service integration and case management: Under the Elementary MOST model, clinicians must provide each client and, where appropriate, household members with an integrated service plan that provides referrals for unmet service needs as indicated in the WellBAT. In all opened cases, clinicians developed integrated service plans and referred clients and family members for collateral services on a routine basis. In the closed and completed cases, Elementary MOST therapists have made an average of 2 referrals per case for collateral services (minimum of 2, maximum of 6, standard deviation of 1.3). In addition, an analysis of the goals in treatment plans indicates that clinicians identifying unmet service needs in the principal assessment domains of the WellBAT (mental health, family, educational, and so on) invariably addressed all diagnosed needs.

For the 91 closed and completed cases, there was an average of 4.8 goals per participant (median of 4.0 and a standard deviation of 2.30). It is important to note as well that for all cases -- closed and completed, closed but not completed, and still open by mid-

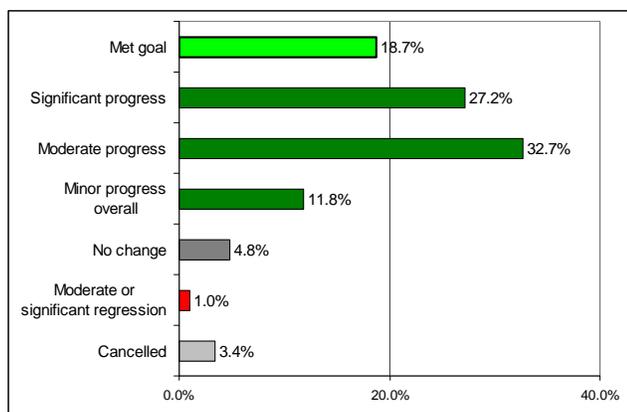
September 2007, there was an average of 5.3 goals per participant (median of 4.5 and a standard deviation of 3.56). CHARI data indicates, moreover, that all treatment goals were routinely monitored by clinicians to determine progress, and in the case of collateral services, compliance with referred services was also routinely monitored.

III. Program Outcomes

YPI is conducting a multi-faceted analysis to gauge the program outcomes of Elementary MOST. It is analyzing: (1) clinical assessments of progress made by clients toward meeting treatment goals; (2) level of improvement as measured by a validated mental health pre- and post-test (the Pediatric Symptom Checklist); (3) changes in school behaviors as measured by referrals for discipline. In general, for those clients who have completed services and have their cases closed, Elementary MOST is resulting in substantial improvements, improving the ability of clients to positively develop socially, emotionally, and educationally.

Progress toward meeting treatment goals: As indicated in **Figure 3** below, for closed cases where services were completed, *clinicians reported that clients either met or made significant progress in meeting 45.9% of their treatment goals* (which cover the domains education, mental health, and family). In another 44.5% of the goals, clients were deemed to have made minor to moderate progress by the time services were completed. For 4.8% of the established treatment goals, the clinicians indicated that the client had not changed, and 3.4% of the goals were cancelled due to the client's failure to cooperate or other reasons. In only 1% of the goals did clinicians observe regression once the case was closed.

Figure 3:
Clinician Evaluation of Treatment Goals at Case Closing
 (N = 434 goals in 91 closed and completed cases)



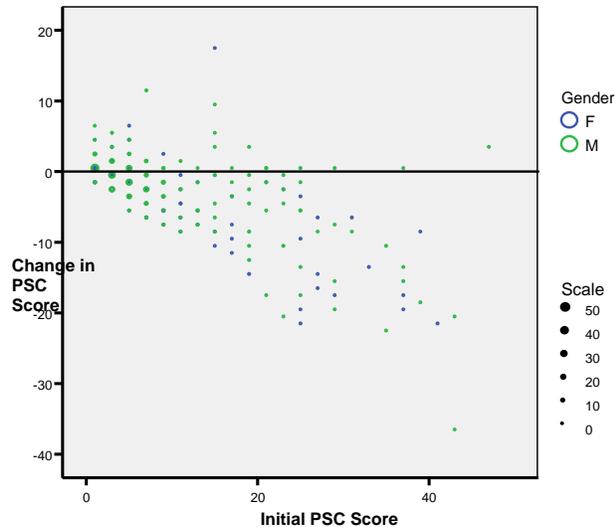
For closed and completed cases, the greatest strides were made in meeting mental health and education treatment goals. For 51.3% of these goals, the clinicians indicated that the goals were met or that significant progress was made; moderate progress was made in 32.7% of the mental health goals, and minor progress in 7.6%. In sum, for clients who completed services, more than one-half of the mental health goals were met, or nearly met; for 40.3% of the goals in this treatment domain, clients made minor to moderate progress. Clinicians reported that 52.9% of the education-related treatment goals were met or experienced significant progress at case closing; in an additional 40.4% of the goals, clients made minor to moderate progress. Regarding family goals, clinicians reported that 33.3% of the treatment goals were either met or experienced significant progress; in 53.6% of the goals, clients made minor to moderate progress.

Pediatric Symptom Checklist (PSC): A validated assessment instrument completed by parents, the PSC provides an accurate measure of psychosocial impairment, with the total score accurately gauging the extent of both internalizing and externalizing

disorders. For closed cases where services were completed, YPI analyzed the changes in the mental health status of Elementary MOST clients by analyzing the change in pre- and post-service PSC scores. The average total score at intake, a composite measure of externalizing and internalizing mental health issues, was 22.2, a level at which mental health services are indicated. At discharge, the average score was 15.4, indicating that, *on average, clients experienced a 30.6% improvement in their mental health status* and no longer required mental health services (mean change of -6.8; standard deviation of 8.5; $p < .001$). This confirms the analysis of treatment goals; the Elementary MOST intervention is having a substantial and positive effect on the social and emotional development of children.

The outcome data indicates differential impacts of the Elementary MOST intervention. As seen in **Figure 4** below, those who had the most severe externalizing and internalizing problems experienced, on average, the greatest level of improvements according to pre- and post-intervention administrations of the PSC. As a consequence, since girls had lower initial PSC scores than boys, their average improvement was -9.42, compared to -5.6 for boys ($p < .028$). By the same token, since lower income children had higher service needs, there was an inverse relationship between income level and average improvement – the poorer the household, the greater the decline in PSC scores among Elementary MOST clients ($p < .05$).

Figure 4:
Change in Pre- and Post-Intervention PSC Scores as a Function of the Initial Score
(N = 86 cases)



Referrals for discipline: To measure the impact of the project services on suspensions and referrals while services were being delivered, the project analyzed the impact of services for two time periods of **equal** duration -- the time MOST services were received (if 60 days or greater) and an equal amount of time prior to receipt of services. An analysis of 177 cases indicates the *number of referrals for disciplinary reasons was 35% lower during the time students were receiving the counseling services than during an equal period of time preceding the services.* YPI also analyzed the impact of services on referrals and suspensions once services were completed by comparing referrals for discipline for two time periods, also of equal duration: the time after Elementary MOST services were completed (if the case was closed at least 30 days before the end of the project period); and an equal amount of time prior to receipt of services. An analysis of 69 cases closed as completed indicates that *the number of referrals and suspensions for disciplinary reasons was 37% lower after receiving the counseling services than during an equal*

period of time preceding the delivery of services.

IV. Conclusion.

Elementary MOST has achieved impressive results during its first 2 years of operations. It has employed and thoroughly trained appropriately qualified staff in the model's procedures, assessment instruments, and database. WellBAT data indicates that the project is identifying an eligible client population with complex service needs that is likely to benefit from the intervention. The implementation has maintained high levels of fidelity to the program model in significant areas: screening, assessment, service planning, and monitoring. The program outcomes are highly positive, and there is little doubt that Elementary MOST is, to a substantial degree, promoting the positive social, emotional, and educational development of participating students.

For further information about this edition of the Elementary Correspondent or about the evaluation of the Auburn Enlarge City School District's Elementary MOST project, please contact:

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