



2013 Youth Services Survey for Families: Results and Predictors of Outcomes

Overview

The Ohio Department of Mental Health Office and Addiction Services, Office of Planning, Quality, and Research of Research (OMHAS-PQR) administered its annual mail survey to parents and guardians of youth mental health consumers on their perception of care and treatment outcomes. Parent/guardians of children and adolescent consumers were queried between March 1 and July 1, 2013 using the Youth Services Survey for Families (YSS-F). Survey results are used for Mental Health Block Grant reporting requirements, to inform quality improvement initiatives, and to give stakeholders a direct indication of how consumers of mental health services in Ohio perceive their treatment and experience in the public mental health system.

Methodology

The 2013 survey administration drew random samples stratified by race and county/board geographic type from the MACSIS billing database. A sample of 5,588 children/adolescents who met criteria for severe emotional disturbance (SED) was drawn from a universe of 70,815 individuals with SED under the age of 18 who received services in last two quarters of State Fiscal Year (SFY) 2012. The sample size for the child/adolescent service population was based on a power analysis for confidence intervals of +/-3. Racial minorities in the youth population were over-sampled in an effort to obtain adequate representation.

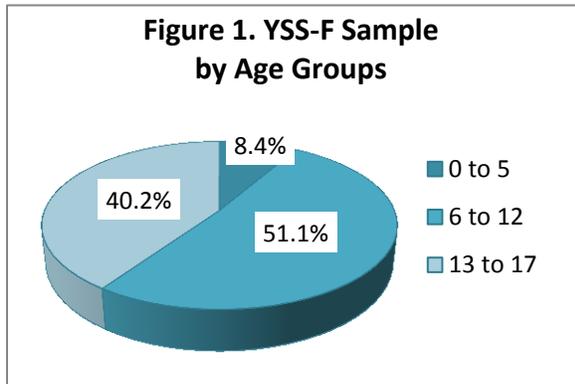
Surveys were mailed out in two waves, with a reminder postcard issued between mailings. Survey participants were given the option of responding by mail with a pre-paid business envelope, by phone over the department's toll-free line, or via an internet survey website.

Sampling Results

In the child/adolescent return sample, 1.0% (N = 58) parent/guardians declined participation, 14.4% (N = 805) survey packets were returned as undeliverable mail, and 66.3% (N = 3,701) survey recipients did not respond. A completed survey was returned by 1,024 parent/guardians, or 21.3% of the sample that received a mail packet.

Sample Demographics

The child/adolescent return sample was 40.4% female (N = 414) and 59.3% male (N = 607), with a mean age of 11.6 years. Divided into three age groups, distribution percentages were: 8.4% age zero to five (N = 86), 51.1% age six to 12 (N = 523), and 40.2% age 13 to 17 (N = 412). (Age was missing for three

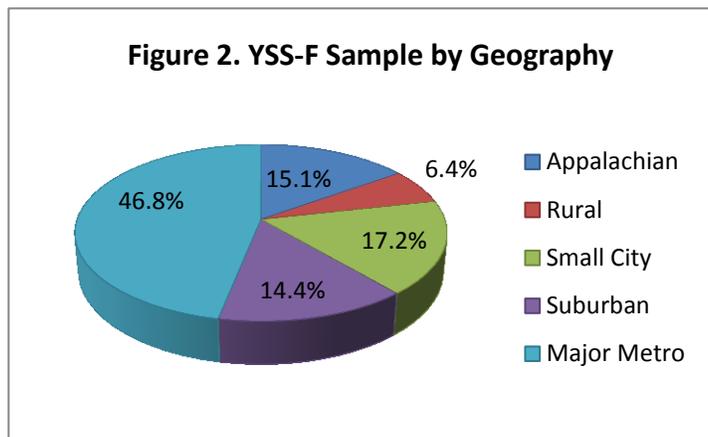


subjects.) Tests of proportions on the sample’s gender and age group distributions showed no statistical differences between survey subjects and the sampled population.

The child/adolescent return sample was 62.8% White (N = 641), 26.2% Black (N =267), and 11% were identified as other or unknown races (N=113). Some 6.1% (N = 65) of the sample were identified by one of several Hispanic/Latino Ethnicities. Grouped into five county/board types, the percentage distributions

were as follows: Appalachian 15.1% (N=155), Rural 6.4% (N=66) Small City 17.1% (N=175), Suburban 14.4% (N=147), and Major Metropolitan 46.7% (N=478). Tests of proportions on the racial and geographic stratification indicated a significant statistical difference between subjects in the sample and the population, with $\chi^2 = 21.663$, $df = 4$, $p = .000$. Major Metro boards were under-represented, and Suburban, Small City, Rural, and Appalachian boards were over-represented. Racial distribution was significantly different ($\chi^2 = 12.849$, $df = 2$, $p = .002$), with Whites over-represented and Blacks under-represented.

The sample was categorized into six primary diagnostic groups associated with the SED population: Some 20.2% (N = 207) had adjustment disorders; 29.7% (N = 305) had ADHD; 19.3% (N=198) had a disruptive behavioral disorder; 18.1% (N = 185) had a mood disorder; 7% (N = 72) were classified as “other” diagnoses, and 5.45% (N = 55) had developmental or other childhood disorders such as autism spectrum. Diagnostic group distribution was significantly different in the return sample than in the population ($\chi^2 = 13.214$, $df = 5$, $p = .021$). The respondent group had more cases in the ADHD group and fewer in the disruptive behavioral disorder group. There also were more cases in the “other” diagnoses and developmental/childhood disorders groups.



Seventy-one percent (N = 725) of the return sample had received services in the prior fiscal year, compared to 66.8% (N = 3047) of the population. A test of proportions indicated that longevity was significantly different between the sample and the population ($\chi^2 = 6.865$, $df = 1$, $p = .009$).

Other Characteristics of the Sample

Some 25.5% of respondents for child/adolescent (N =261) consumers indicated they were not receiving services at the time of the survey. Additionally, 5.1% of parent/guardians (N = 52) reported the child/adolescent consumer was not living with them at the time of the survey. Some 14.3% (N = 71) of

respondents indicated that the child/adolescent had been arrested prior to onset of treatment or within the last 12 months if there was treatment longevity greater than a year. Another 24.4% (N = 247) of respondents reported that the child/adolescent had been suspended or expelled from school prior to treatment onset or within the last 12 months when longevity was greater than a year.

Because population parameters for current service receipt, living situation, police encounters, and school disciplinary action are unknown, tests of proportions were not conducted.

Survey Results

YSS-F Subscale Scores

The content of subscales in the YSS-F instrument is unique to the child and adolescent mental health population. (See Table 1 for items in subscale domains.) Items in a subscale are summed and divided by the total number of items, and scores greater than or equal to 3.5 are reported in the positive range. Cases with subscales where more than one-third of items are missing are dropped from the final analysis. A copy of the YSS-F instrument with questions linked to each item number is located at the end this report.

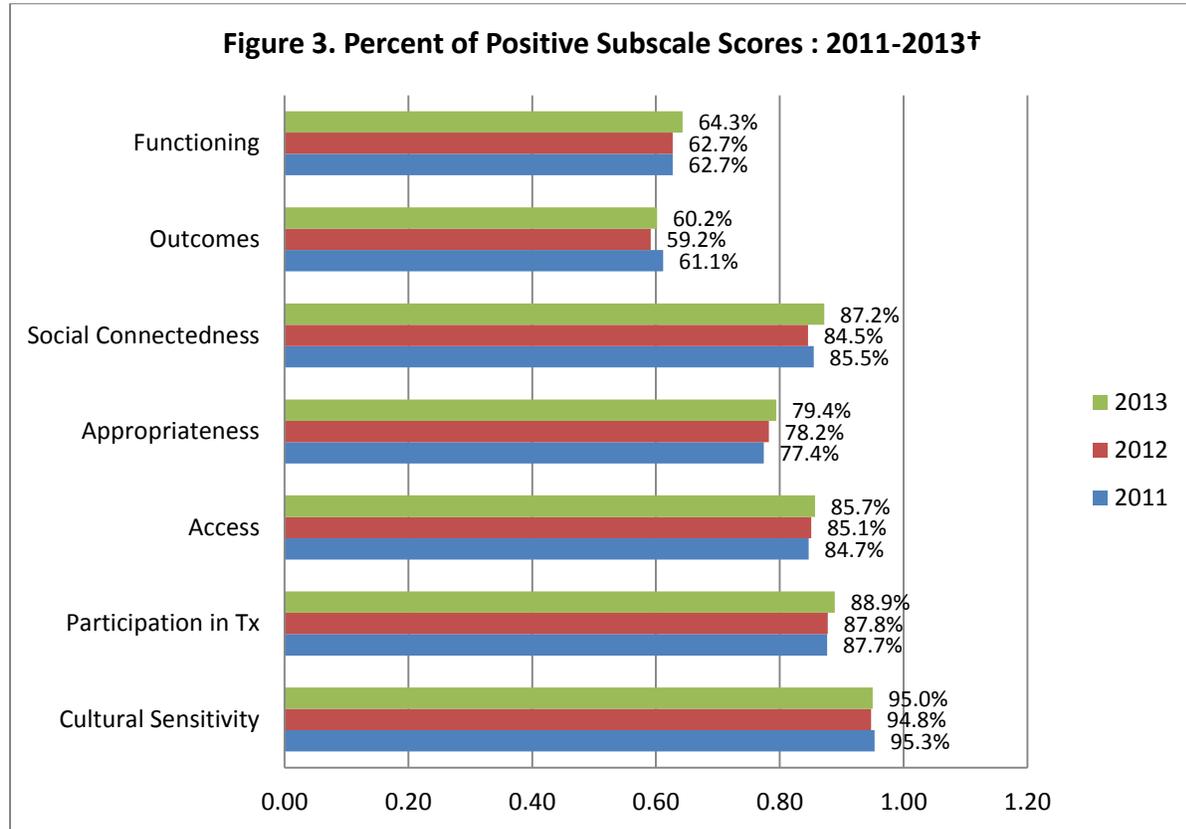
Table 1. YSS-F Subscale Items	
YSS-F Subscale	Survey Item Numbers
<i>Access</i>	8, 9
<i>Participation in Treatment</i>	2, 3, 6
<i>Cultural Sensitivity</i>	12, 13, 14, 15
<i>Appropriateness</i>	1, 4, 5, 7, 10, 11
<i>Outcomes</i>	16, 17, 18, 19, 20, 21, 22
<i>Functioning</i>	16, 17, 18, 19, 20, 22
<i>Social Connectedness</i>	23, 24, 25, 26

In the 2013 return sample, the highest percent of positive scores was for the *Cultural Sensitivity* subscale, a domain specific to the YSS-F. The subscale, which focuses on perceptions of cultural competent care, received positive scores from 93.8% of survey respondents. (See Figure 3 for percent of positive subscale responses.) *Participation in Treatment* was the next highest subscale with percent of positive scores. This domain gauges the parent or guardian’s satisfaction with their input in their child’s treatment. Some 88.6% of respondents ranked the subscale in the

positive range. *Access* to care was ranked positively by 84.9% of parents/guardians. *Social Connectedness*, a subscale that asks the parent/guardian to measure their perceptions of the family’s support system, was ranked positive by 86.3% of the YSS-F respondents. *Appropriateness* of treatment was the second lowest YSS-F subscale in percent of positive responses. Positive perceptions regarding a correct fit of their child’s treatment was reported by 79% of parents and guardians. Lastly, YSS-F respondents ranked *Outcomes* lowest of the subscales. Just over half (59.8%) of parents and guardians responded positively to the *Outcomes* items.

Figure 3 depicts percentage of positive scores calculated in from 2011 through 2013 and indicates that on most subscales, the 2013 percentages are higher on four of six subscales. In the 2013

administration, the largest increase in positive responses over 2012 occurred in the Social Connectedness domain.



†YSS-F subscale score calculations have been standardized across three years for comparability.

The least variability over the three years in percentage of positive responses occurs with cultural sensitivity. The slightly lower percentages of positive scores on the Outcomes subscale compared to Functioning are based on the inclusion of a single question, “I am satisfied with our family life right now.”

Further Analyses

Means tests were run on the mean scores for the Outcomes subscale to determine if there were any significant associated factors. The categorical variables entered into the means testing were gender, race, geographic type, longevity, current service receipt, living situation, history of police involvement, history of school discipline. T-tests indicated significantly lower mean scores for longevity greater than 12 months, currently active service receipt, out-of-home living situation, and positive history of police involvement and/or school discipline. One-way analysis of variance (ANOVA) tests indicated no significant difference in mean scores on Outcomes based on gender, race, geographic type, or diagnostic group.

A correlation matrix also was run on the Outcomes subscale mean with the four perception of care subscales (cultural sensitivity, appropriateness, participation, and access), social connectedness, and age. All variables were significantly correlated. Subscales for cultural sensitivity, participation, access, and social connectedness were moderately correlated in the .411 to .474 range, with $p < .000$. The appropriateness subscale was more strongly correlated at .687 than other subscales, with $p < .000$. Age was negatively and weakly correlated at $-.073$, with $p = .02$.

Hypothesis

From the initial analyses described above, the hypothesis was developed: After controlling for factors associated with problem severity, the parents or guardian’s perception of service appropriateness will predict substantially and significantly higher mean scores on the Outcomes subscale.

Linear Regression

Table 2. Regression Results for YSS-F Outcomes Subscale		
Variable	Beta	SE
Constant	.928***	.202
Age	-.003	.006
Longevity less than a year	-.122**	.048
Current Service Receipt – no	-.179***	.050
In-home Living Situation	.233**	.107
Recent Police Involvement - no	-.059	.092
Recently Expelled/Suspended – no	-.198***	.051
Access to care	.014	.035
Participation in treatment	.049	.044
Cultural sensitivity	-.095	.051
Appropriateness of services	.727***	.039
R-squared	.506	
Adjusted R-squared	.501	
df	968	
*, **, *** indicates significance at 90%, 95%, and 99% level respectively		

A hierarchical linear regression using SPSS-19 was run on the Outcomes subscale with the following variables in order of steps: 1) age, longevity, current service receipt, 2) living situation, histories of police involvement and/or school discipline, 3) access, cultural sensitivity, participation subscales, and 4) appropriateness of services. The social connectedness subscale was left out of the analysis because it is an outcome measure. A significant

model emerged at the fourth step, with $F = 98.117$, $df = 10$, $p < .000$. Results are reported in Table 2.

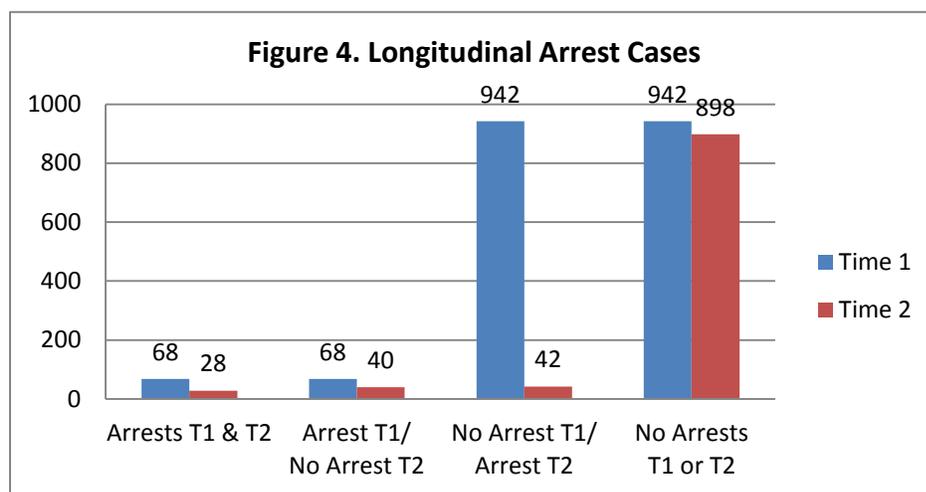
Of the total .506 R-square, addition of the Appropriateness subscale at step four produced .179 of the R-square change. At step three, the addition of Access, Participation and Cultural Sensitivity produced .272 of the R-square change. In other words, a highly significant variable (Appropriateness) predicted about 35% of the total variance in mean Outcome scores, while three variables (with only one having weak significance) explain about 54% of the variance. Significant indicators of problem severity (or lack thereof)—a shorter length of time in treatment, treatment completion, in-home living situation, and lack of school disciplinary problems—predicted only .055 of the R-square, or about 11% of the total variance.

Other Outcome Measures

In the 2013 administration of the YSS-F, parent/guardians of child and adolescent consumers were asked to report on arrests at two time points. Parent/guardian respondents also were asked to report on school expulsions and suspensions at two time points. In the longitudinal measurement of both arrest and school discipline, Time 1 (T1) was the 12 to 24 month period prior to survey administration, while Time 2 (T2) was the more recent one to 12 month period. The OMHAS Bureau of Research and Evaluation has chosen to collect and report on consumer arrests and police encounters, expulsions/suspension and school attendance through randomized consumer surveys until widespread provider reporting of client-level measures of these National Outcomes Measures (NOMs) becomes effective. This section of the report highlights the results of the arrest and school attendance information appended to the YSS-F surveys administered in the third quarter of SFY 2013.

Distribution of the Outcome Variables

There were 1010 valid responses to the question about arrests that occurred in the one to 12 months (T2) preceding the survey administration, and 1010 valid responses to a question about arrests that occurred in the 12 to 24 months (T1) prior to that. In a cross-sectional frequency analysis, 93.3% (N = 942) had no arrests at T1, and 6.7% (N = 68) had arrests. At T2, 92.4% (N = 943) had no arrests, and 7.0% (N = 70) had arrests.

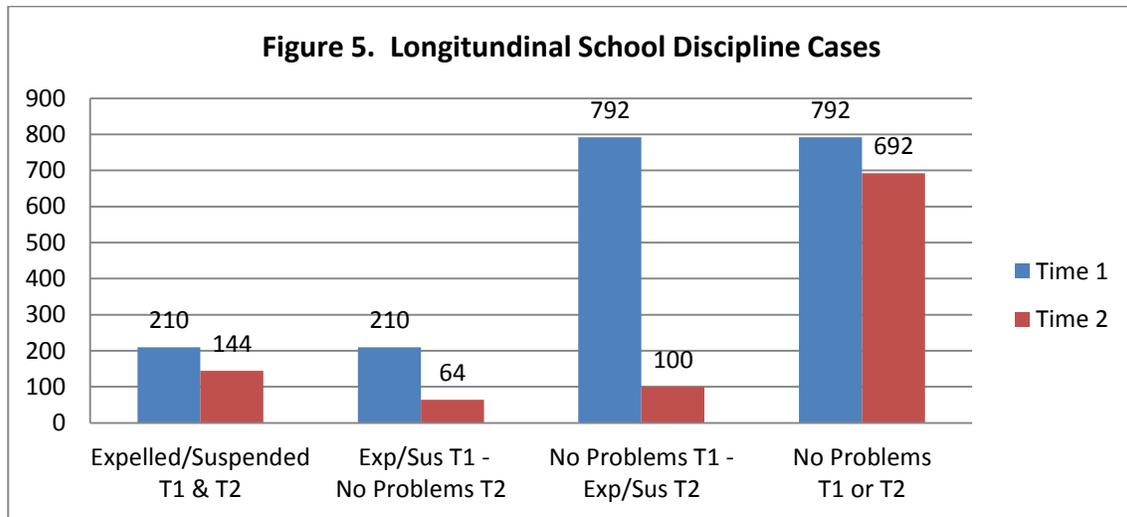


The longitudinal analysis of arrests shown in Figure 4, indicates that of 68 youth with arrests at T1, 28 (41.2%) were re-arrested at T2, while 40 (58.8%) of youths with T1 arrests had no arrests at T2. Of the 942 youths with no arrests at T1, 42 (4.5%) were arrested at T2, while 898 (95.3%) with no T1 arrests had no T2 arrests.

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There were 1009 valid responses to the question about school expulsions and suspensions in the one to 12 months (T2) preceding the survey administration and 1002 valid responses to the question about the 12 to 24 months (T1) prior to that. Cross-sectional frequency analysis indicated that 77.6% (N = 792) had no school problems at T1, while 20.6% (N = 210) were expelled or suspended during that time period. At T2, 75.5% (N = 756) had no school problems, while 24.2% (N = 244) were expelled or suspended.

The longitudinal analysis of expulsions/suspensions shown in Figure 5, indicates that of 210 youth with school problems at T1, 144 (68.6%) had problems T2, while 64 (30.5%) with T1 problems had no problems at T2. Of the 792 youth with no school problems at T1, 100 (12.6%) had expulsions or suspensions at T2, while 692 (87.4%) with no T1 school problems had no problems at T2.



Further Analyses

Based on the results of the linear regression on Outcomes, independent variables were regressed on the dichotomous variables for Arrest at Time 2 and School Expulsion/Suspension at Time 2. It was hypothesized that that perception of appropriateness of services would associate with the probability of avoiding police involvement or school disruption. Two significant explanatory models emerged, with the regression on T2Arrest resulting in $\chi^2=138.86$, $df = 8$, $\alpha = .000$ and the regression on T2 Expulsion/Suspension resulting in $\chi^2 = 263.59$, $df = 3$, $\alpha = .000$. The result of each regression model is found in Tables 3 and 4.

The regression on Time 2 arrest events shown in Table 3 indicate that the older the youth, the greater is the probability of an arrest at Time 2. Indeed, for every year increase in age, the probability of an arrest increases by 78.7%. If the youth was receiving services at the time of the survey, there is a greater probability of an arrest having occurred in the previous 12 months or during the course of treatment. African-American race also raises the probability of an arrest, but Caucasian and Other/Unknown race is not significant. If the youth was living with the survey respondent, there is less probability of an arrest in the previous 12 months, as indicated by the negative Beta. At a Beta weight of -1.918, residing with the respondent/guardian at time of the survey also reflects the highest probability in the model of non-arrest at Time 2. At a Beta weight of 1.653, an arrest at Time 1 (12 to 24 months prior to the survey) reflects the second highest indicator of arrest probability in the model. Expulsion at Time 1 also raises the probability of arrest at Time 2, whereas a one point increase in the Appropriateness scale mean score raises the probability of having avoided an arrest in the previous 12 months by 60.9%.

Table 3. Regression Results for T2 Arrest		
Variable	Beta	SE
<i>Constant</i>	-3.457***	.148
Age	.213***	.054
Race†		
African-American	.594*	.317
Other/Unknown	-.499	.567
Lives with respondent - no	-1.918***	.395
Currently receives services	.654*	.380
Arrested at Time 1 - yes	1.653***	.354
Expelled/Suspended at Time 1 - yes	.892***	.305
Appropriateness Scale	-.391***	.148
$\chi^2=138.86, df = 8, \alpha = .000$ †Referent race is Caucasian *, **, *** indicates significance at 90%, 95%, and 99% level respectively		

The regression on Time 2 Expulsions/Suspension events shown in Table 4 is striking for its lack of any explanatory variables related to quality of the treatment received, e.g., appropriateness of care, access, participation in treatment, or cultural competence. Indeed, the single largest and most significant predictor of a school disciplinary event in the 12 months prior to the survey administration is the occurrence of a school problem in the preceding 12 to 24 months. Older age and male gender also increase the probability of a suspension/expulsion.

Table 4. Regression Results for T2 Expulsion/Suspension		
Variable	Beta	SE
<i>Constant</i>	-2.862***	.351
Age	.057**	.025
Gender (male)	.428**	.184
Expelled/Suspended T1 - yes	2.680***	.186
$\chi^2 = 263.59, df = 3, \alpha = .000$ *, **, *** indicates significance at 90%, 95%, and 99% level respectively		

Limitations and Conclusions

Other than age and gender, the sample is not representative of the service population by race, geographic typology, or diagnostic groups. Therefore, generalizability is limited to children and adolescents in treatment during FY 2012. Furthermore, outcome measures such as quality of life, functioning, social connectedness are parent/guardian-reported post-hoc perceptions of treatment effectiveness. Similarly, the time 1 and time 2 measures of police involvement and school disruption are self-reported measures taken up to 24 months after the reported events took place. The validity of outcome subscales can be questioned, but the relative lack of variability across three years' measurement suggests stability in the measurement constructs. The subscale confidence intervals of

+/-3 points are fairly large, and should be taken into consideration when comparing differences in the percentages of positive scores from one year to the next.

There are two findings that are meaningful for policies concerned with improved clinical quality. First and foremost, the parent/guardian's satisfaction with the provider's commitment, therapeutic alliance, and responsiveness of services to needs, preferences and fit are important predictors of positive treatment outcomes, including police involvement. Secondly, perception of service quality does not appear to affect school disciplinary outcomes.

The majority of children and adolescents in treatment have no reported police involvement or school disciplinary problems. Where there is police involvement, the parent/guardian's perception of the appropriateness of services is a significant predictor of reduced police involvement. A surprising finding about the predictors of school disciplinary events is that quality of treatment—as measured by four subscales—showed no impact on decreasing the incidence of expulsions/suspensions. There is no measure in the YSS-F of parent/guardian satisfaction with school-based services or interventions focused on the child-in-environment interface. This suggests the need for additional measures of service appropriateness specific to school-based and environmental interventions. Further study might compare survey responses from parent/guardians with a child enrolled in school-based services versus those with a child enrolled in treatment as usual.

Youth Services Survey for Families

Please help the Department of Mental Health make services better by answering some questions about the services your child received OVER THE LAST 6 MONTHS. If your child has received services from more than one mental health provider, choose the one you think of the main or primary provider. Please indicate if you Strongly Agree, Agree, are Undecided, Disagree, or Strongly Disagree with each of the statements. Fill in or put a cross (X) in the circle that best describes your answer. Thank you!

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. Overall, I am satisfied with the services my child received.....	<input type="radio"/>				
2. I helped to choose my child's services.....	<input type="radio"/>				
3. I helped to choose my child's treatment goals.....	<input type="radio"/>				
4. The people helping my child stuck with us no matter what.....	<input type="radio"/>				
5. I felt my child had someone to talk to when he/she was troubled.....	<input type="radio"/>				
6. I participated in my child's treatment.....	<input type="radio"/>				
7. The services my child and/or family received were right for us.....	<input type="radio"/>				
8. The location of services was convenient for us.....	<input type="radio"/>				
9. Services were available at times that were convenient for us.....	<input type="radio"/>				
10. My family got the help we wanted for my child.....	<input type="radio"/>				
11. My family got as much help as we needed for my child.....	<input type="radio"/>				
12. Staff treated me with respect.....	<input type="radio"/>				
13. Staff respected my family's religious/spiritual beliefs.....	<input type="radio"/>				
14. Staff spoke with me in a way that I understood.....	<input type="radio"/>				
15. Staff were sensitive to my cultural/ethnic background.....	<input type="radio"/>				
<i>As a result of the services my child and/or family received:</i>					
16. My child is better at handling daily life.....	<input type="radio"/>				
17. My child gets along better with family members.....	<input type="radio"/>				
18. My child gets along better with friends and other people.....	<input type="radio"/>				
19. My child is doing better in school and/or work.....	<input type="radio"/>				
20. My child is better able to cope when things go wrong.....	<input type="radio"/>				
21. I am satisfied with our family life right now.....	<input type="radio"/>				
22. My child is better able to do things he or she wants to do.....	<input type="radio"/>				
<i>As a result of the services my child and/or family received:</i>					
<i>Please answer for relationships with persons other than your mental health provider(s)</i>					
23. I know people who will listen and understand me when I need to talk.....	<input type="radio"/>				
24. I have people I'm comfortable talking with about my child's problem.....	<input type="radio"/>				
25. In a crisis, I would have the support I need from family or friends.....	<input type="radio"/>				
26. I have people with whom I can do enjoyable things.....	<input type="radio"/>				

Please turn survey over to answer questions on back side.

Youth Services Survey for Families

27. Is your child currently living with you? Yes No
28. Does your child currently receive mental health services? Yes No
29. Was your child arrested since beginning to receive mental health services? Yes No
30. Was your child arrested during the 12 months prior to that? Yes No
31. Over the last year, have encounters with the police:
- Been reduced. Child hasn't been arrested, hassled by police or escorted to a shelter or crisis program.
 - Stayed the same.
 - Increased.
 - Not applicable. There were no police encounters this year or last.
32. Was your child expelled or suspended since beginning services? Yes No
33. Was your child expelled or suspended during the 12 months prior to that? Yes No
34. Over the last year, the number of days my child was in school is:
- Greater.
 - About the same.
 - Less.
 - Does not apply. *(Please select why this doesn't apply.)*
 - Child didn't have a problem with attendance before starting services.
 - Child is too young to be in school.
 - Child was expelled from school.
 - Child is home-schooled.
 - Child dropped out of school.
 - Other: _____