



Title: The Parent Support and Training Practice Protocol - Validation of the Scoring Tool and Establishing Statewide Baseline Fidelity

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Executive Summary

Previous phases of research—conducted in collaboration with CMHCs in Kansas—have resulted in a Parent Support and Training Practice Protocol and supporting implementation tools, which were informed by and developed with expert stakeholder consensus on the essential components of high quality PST service and effective implementation (Byrnes, Davis-Groves, Byers, Johnson, & McDonald, 2010; Davis-Groves, Byrnes, Byers, Johnson, & McDonald, 2010). The companion implementation tools include the Needs Assessment and the PST Fidelity Scoring Tool (see Appendix A). Used together, these tools provide a means of quantitatively measuring fidelity to the PST Practice Protocol within the practice environment (see Appendix B for details on development).

The current phase of research detailed in this report sought to: 1) establish a statewide baseline level of fidelity to the PST Practice Protocol; 2) validate the PST Fidelity Scoring Tool for use in assessing fidelity to the PST Practice Protocol; and 3) begin examining the efficacy of the fidelity monitoring procedure that consists of medical records reviews in conjunction with one short qualitative interview per site.

In order to accomplish this phase of study, a random sample ($N = 260$) from eight geographically and programmatically diverse sites was generated from the population of Medicaid Claims for Parent Support and Training Services from Kansas Community Mental Health Centers (CMHCs) from calendar years 2008–2010 ($N = 6570$). Due to missing data, the final sample utilized for all analyses was 228. Researchers then approached the sites, with the support of the Association of Community Mental Health Centers, to coordinate individual fidelity review site visits. Individual reports on results of the review were shared with each site and feedback was gathered on findings. In addition, sites were invited to participate in the next phase of study.

Results show that ***overall statewide mean scores of all sections of the protocol were in a high range indicating a high level of fidelity to the PST Practice Protocol currently in practice across Kansas*** (see Table 1).

Table 1

Statewide Baseline Fidelity to the Parent Support and Training Protocol (N = 228)

Protocol Section	Minimum Score (%)	Maximum Score (%)	SD	Mean Score (%)
Section 1: Referral	0.00	100	23.85	90.92
Section 2: Engagement	20.51	100	12.39	95.19
Section 3: Intervention	0.00	100	14.13	88.91
Total Score	32.14	100	11.34	91.34

Reliability and validity of the PST Practice Protocol Scoring Tool has been established confirming that the scoring tool is a reasonable measure of provider fidelity to the PST model in practice. Interrater reliability, internal consistency reliability, and content validity were established at high levels through data collection methods as well as statistical analysis. Though assessment of construct validity will be ongoing in the next phases of research, we were also able to establish support through maximum likelihood factor analysis for the structure of this measure which includes three subscales—Referral, Engagement, and Intervention. Therefore, this measure will be integrated in its current form into the fidelity monitoring protocol that will accompany future training.

In order to examine the efficacy of the fidelity monitoring procedure, researchers also tracked and analyzed which portions of the scoring tool were collected via chart review versus interview—statewide and by CMHC site. Of the protocol items that were scored as having been delivered during service provision, 77.15% were collected via review of medical records and 9.91% were collected via qualitative interview, statewide. ***Overall these data reveal that the indicators that make up the PST Practice Protocol Scoring Tool can be assessed effectively using a procedure that combines a medical records review along with a short qualitative interview of key staff.***

Each participating site had numerous strengths. Highlights of these strengths include the openness of Community Based Services (CBS) Directors to collaboration and their acknowledgement of the unique role PST providers play in community-based treatment. Additionally, several PST providers who have longevity in their roles contributed practice-based expertise on how indicators and action steps were skillfully carried out, which continues to inform further development of the PST Practice Protocol.

In the next two years, researchers will begin the evaluation of PST Practice Protocol Outcomes—the next step in establishing PST as an evidence-based practice. The outcome evaluation will determine whether provision of high fidelity PST service leads to increased caregiver and youth outcomes. In addition, implementation training will be developed and offered in regional locations throughout Kansas. This training will be designed for providers who bill Medicaid reimbursable PST Services in CMHCs and illustrate how to utilize the PST Practice Protocol tools to deliver effective PST services. Researchers will also begin monitoring fidelity and providing technical assistance to trained PST providers within three to six months following providers' participation in live training.

At the conclusion of the next research phase, the final product—a culmination of all phases of the PST research project—will be a comprehensive package of an evidence-supported practice model of PST services. This package will include a practice protocol, live training, technical assistance supports, web-based implementation tools, on-site consultation, and fidelity monitoring procedures.

Report

Background

In collaboration with CMHCs in Kansas, researchers have documented and achieved statewide stakeholder consensus regarding the core components of Parent Support and Training services and practices in the Kansas community mental health system (Davis-Groves, Byrnes, Byers, Johnson, & McDonald, 2010). Subsequently, The Parent Support and Training Practice Protocol, which contains the steps involved in providing effective, high-quality PST services in Kansas was developed as a practice tool to guide effective implementation (Byrnes, Davis-Groves, Byers, Johnson, & McDonald, 2010). Results of the consensus study were also utilized to develop companion implementation tools—the Needs Assessment and PST Fidelity Scoring Tool (see Appendix A)—as a means of quantitatively measuring fidelity to the PST Practice Protocol within the practice environment (see Appendix B for details on development).

Purpose

The purpose of the following report is to: 1) establish a statewide baseline level of fidelity to the PST Practice Protocol; 2) validate the PST Fidelity Scoring Tool for use as a way to assess fidelity to the PST Practice Protocol; and 3) determine efficacy of the fidelity monitoring procedure consisting of medical records reviewed in conjunction with one short qualitative interview per site.

Sample

The original sampling frame consisted of all children under the age of eighteen with Medicaid claims for Parent Support and Training (PST) services from Kansas community mental health centers (CMHC) for the calendar years 2008–2010 ($N = 6570$). In consultation with SRS administrators, eight geographically diverse CMHCs were selected to participate in the review of administrative/medical records to measure fidelity to the PST Practice Protocol. These sites, representing a wide range of model implementation, were chosen in an effort to maximize variance for the purposes of measure validation. The initial sampling frame was then reduced to include only those clients who received services from any of these eight selected CMHCs ($N = 1229$). From these remaining records, any consumers who had received less than twelve units (3 hours) of PST services were eliminated, leaving a final sampling frame of 779 consumers. This cutoff point of twelve units was selected by the research team as the minimum amount of time necessary for a provider to carry out at least the first two sections of the PST Practice Protocol in their entirety. A power analysis was conducted to determine sufficient sample size. From the final sampling frame, a random selection of 260 cases was generated. The number of

administrative/medical charts selected to be reviewed at each CMHC, ranging from 12 to 66 records, was proportional to the number of consumers each provided with PST services during the time period selected (2008–2010). During the data collection phase, one center dropped out of the study as it was unable to access all necessary documentation for researcher review. This reduced the sample from 260 cases to a final sample of 237 cases.

Procedure

Researchers contacted the executive director of each agency, described the study and asked for permission to conduct the study. Follow-up contacts were conducted with the community based services (CBS) supervisors to set up site visits to review charts and have lunch with staff that provide PST services and work closely with PST service providers.

The purpose of the lunch meetings was to interview providers to gain an understanding of protocol indicators that may not be documented in the charts. For instance, items that were frequently discussed during these meetings included: 1) how the referral to PST services typically happens; 2) how teams work together; 3) how PST providers set limits around what they do; and 4) for PST providers who are also parents of children with special needs, how do the PSTs share personal information with the family to help build trust (see Appendix A). Information obtained from the lunch meeting interviews was documented on scoring profiles at each respective agency to augment information obtained from the review of medical record charts.

Chart reviews were conducted to document which PST Practice Protocol indicators were carried out during provision of PST services. Progress notes from any provider who provided PST services during the time period of this study (2008–2010) were also reviewed if the client met sample criteria. The number of records reviewed varied by site. Though many of those providers are still currently employed at their respective CMHC sites and participated actively in the study, there were also providers whose records we reviewed who were no longer employed at the agency.

Indicator sources (data collection via chart review versus interview) were tracked so that researchers could determine what indicators could be collected through the chart review and which questions should be asked during interviews in future fidelity reviews.

Individual site reports were prepared for the eight sites that participated in the study. Reports detailed the background, purpose, sampling strategy, site engagement procedures, and analysis as described in this report. In addition, each sites' organizational and programmatic strengths were highlighted. Reports were emailed to CBS Directors in May 2012 and conference calls were set up in June 2012 to review reports and gather feedback on the findings as well as invite agencies to participate in the next phase of research (See Next Steps).

Analysis

Analysis of statewide PST Practice Protocol fidelity data was conducted using PASW Statistics, Version 18. Statewide baseline fidelity and fidelity by individual CMHC site was assessed using descriptive statistics, including minimum, maximum, standard deviation, and mean fidelity scores on each of the three sections of the PST Practice Protocol, as well as on the total score. Listwise deletion was selected to manage missing data, and all resulting analyses were of the remaining 228 cases.

Additionally, analyses were conducted to test the reliability and validity of the fidelity measurement procedure used for this data collection, which included use of the PST Practice Protocol Scoring Tool developed during a previous phase of the research and a short qualitative interview with members of the treatment team. Content validity of the scoring tool items was established in a previous phase of the project using Concept Mapping to establish stakeholder/expert consensus on: 1) the most important indicators of the parent support service and 2) the grouping of indicators into thematic clusters. These items were evaluated by researchers and reduced to 34 items representing three subscales—Referral, Engagement, and Intervention—to make up the scoring tool. Through the course of data collection in this phase, researchers identified two additional subscales they hypothesized may also be present in the measure related to treatment team collaboration and family involvement. Therefore, a maximum likelihood factor analysis was conducted to assess the underlying structure of this measure. PASW Statistics, Version 18 was also used for this analysis, as well as to conduct reliability tests of internal consistency.

Finally, during data collection, researchers collected additional data to determine efficacy of the fidelity monitoring procedure consisting of medical records reviews in conjunction with one short qualitative interview. Researchers documented which indicators of the scoring tool were able to be collected from the review of medical records and which items had to be gathered during short qualitative interviews with members of the treatment team (PST providers and supervisors). These data were analyzed using descriptive statistics. This analysis served to direct refinement of the fidelity monitoring procedure, as well as to inform sites about what parts of the PST Practice Protocol were well documented and identify any areas that may require programmatic attention.

Results

Statewide Baseline Fidelity

A baseline score of statewide fidelity was established and is reported in Table 1. Individual CMHC site scores were reported to each site and are not included in this report. Measures of dispersion on statewide scores for each section of the protocol revealed a wide range. For example, scores of 0.00% through 100% were obtained for the Referral section of the protocol, indicating a high level of variability in scores. This variability may be a result of factors such as variations in documentation practices or referral procedures. However, since overall mean

scores are high, with acceptable standard deviation, this high variability likely reflects some fluctuation of fidelity along with a few unusual cases. Additionally, during interviews with site administrators, many made references to improvements made to documentation and medical recordkeeping in recent years. Because this report is based on a historical review of records from January 2008 through December 2010, these improvements may not be reflected in this analysis. Despite this limitation, the overall statewide mean score of all sections of the protocol were in a high range indicating a high level of fidelity to the PST protocol in practice across Kansas.

Table 1

Statewide Baseline Fidelity to the Parent Support and Training Protocol (N = 228)

Protocol Section	Minimum Score (%)	Maximum Score (%)	SD	Mean Score (%)
Section 1: Referral	0.00	100	23.85	90.92
Section 2: Engagement	20.51	100	12.39	95.19
Section 3: Intervention	0.00	100	14.13	88.91
Total Score	32.14	100	11.34	91.34

Reliability and Validity

Interrater reliability was established by the research team by conducting the first data collection site visit as a team. Ratings of individual items were discussed and agreed upon by team members until consistent rating criteria were established. Researchers continued to triangulate with all members of the research team throughout data collection at all sites to ensure that drift in scoring criteria did not occur. Additionally, two internal consistency estimates of reliability were computed for the PST Practice Protocol Scoring Tool: a split-half coefficient expressed as a Spearman-Brown corrected correlation and coefficient alpha. For the split-half coefficient, the scale was split into two halves such that the two halves would be as equivalent as possible. In splitting the items, we took into account the sequencing of the items to evenly represent each section of the protocol. One of the halves included all odd numbered items and the other half included all even numbered items. Values for coefficient alpha (.84) and the split-half coefficient (.85) were similar and both represent good internal consistency reliability.

The dimensionality of the 34 items from the PST Practice Protocol Scoring Tool was analyzed using maximum likelihood factor analysis to begin establishing construct validity by assessing the underlying structure of the scoring tool and testing the hypothesis that two additional subscales may be present in the scoring tool—Team Collaboration and Family Involvement. Three criteria were used to determine the number of factors to rotate: the *a priori* hypothesis that the measure was multidimensional, the scree test, and the interpretability of the factor solution. The scree plot indicated that our initial hypothesis of three rather than five subscales contained within the PST scoring tool was correct. Based on the plot, three factors were rotated using a Varimax rotation procedure. Though some loadings were lower than expected, the rotated solution, as shown in Table 2, yielded three interpretable factors that align almost

precisely with the previously established subscales—Referral, Engagement, and Intervention (Table 3). The Referral factor accounted for 16.7% of the item variance, Engagement accounted for 9.7%, and the Intervention factor accounted for 9.1% of the item variance for a cumulative percentage of 33.44%. Items with low loadings were retained because they were established as conceptually important when evaluating content validity in previous research phases. Additionally, though the three *a priori* factors were not reproduced precisely with all associated items loading definitively on their respective factor, when considering cross loadings across factors, we conclude that the factors reproduced sufficiently to support the three established subscales.

Table 2
Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cum. %	Total	% of Variance	Cum. %	Total	% of Variance	Cum. %
1	6.77	19.91	19.91	5.70	16.77	16.77	4.99	14.70	14.79
2	3.56	10.48	30.38	3.30	9.70	26.47	3.28	9.65	24.34
3	2.94	8.64	39.02	2.40	7.00	33.44	3.10	9.10	33.44

Table 3
Rotated Factor Matrix

	Factor 1	Factor 2	Factor 3
Item 1	.934	-.015	-.046
Item 2	.942	-.122	-.077
Item 3	.807	-.137	.063
Item 4	.865	-.132	.036
Item 5	.783	-.142	-.020
Item 6	.129	.032	.086
Item 7	.596	.000	.039
Item 8	.626	-.038	.001
Item 9	.344	.281	.021
Item 10	.155	.467	-.040
Item 11	.385	.314	-.073
Item 12	.216	.425	-.008
Item 13	.242	.465	-.183
Item 14	.465	.819	-.306
Item 15	.120	.757	-.124
Item 16	.144	.406	-.360
Item 17	.326	.283	-.197
Item 18	.149	.186	-.187
Item 19	.225	.136	-.203
Item 20	.293	.083	.539

Item 21	.096	.180	.273
Item 22	.274	.096	.378
Item 23	.206	.301	.398
Item 24	.046	.252	.219
Item 25	.067	.376	.115
Item 26	.299	.441	.559
Item 27	.116	.328	.552
Item 28	.073	.248	.415
Item 29	.202	.218	.433
Item 30	.003	.179	.205
Item 31	.354	.194	.236
Item 32	.037	.135	.202
Item 33	.130	.173	.224
Item 34	.142	.123	.249

Validity of the PST Practice Protocol will be further established in the next phase of the project when researchers will continue collaboration with CMHC sites to test the model of Parent Support, hypothesizing that provision of PST services with high fidelity will predict higher levels of perceived social support, parenting skill, parenting self-efficacy, caregiver hopefulness and empowerment, and lower levels of caregiver strain, home instability, and truancy. As the hypothesis that the scoring tool also contained team and family subscales was not upheld; additional measures of these two constructs have been developed by researchers for inclusion in ongoing model testing as additional components of fidelity measurement.

Because CMHCs were chosen for participation in this phase of the study, in part, to maximize variation among the sample, a one-way multivariate analysis of variance (MANOVA) was conducted to determine whether CMHC site affiliation affected scores on the three dependent variables: Referral, Engagement, and Intervention scores on the Parent Support and Training Protocol Scoring Tool. Box's test of equality of covariance matrices was significant ($p < .001$) so robustness could not be assumed due to unequal variances among groups. Pillai's Trace was therefore used to interpret the MANOVA results. Significant differences were found among the three dependent measure subscales, Pillai's Trace = .25, $F(18, 663) = 3.27$, $p < .001$. The multivariate η^2 based on Pillai's Trace indicates a medium effect size, .08. Table 1 contains the means and the standard deviations on the dependent variables for the three groups, along with the means and standard deviations on the Total Score on the PST Practice Protocol Scoring Tool which was not included in this analysis as it is an aggregate of these three scales.

Analysis of variances (ANOVA) on the dependent variables was conducted as a follow-up test to the MANOVA. Using the Bonferroni method, each ANOVA was tested at the .017 level. The ANOVA on the Referral and Engagement section scores were significant: $F(6, 221) = 7.22$, $p < .001$, $\eta^2 = .16$; and $F(6, 221) = 3.01$, $p = .008$, $\eta^2 = .08$; respectively. The ANOVA on the Intervention section score was not significant, $F(6, 221) = 2.25$, $p = .04$, $\eta^2 = .06$.

The Bonferroni post hoc analysis revealed that two CMHCs from the sample with the lowest scores on the Referral section of the scoring tool showed statistically significant differences from three of the other CMHCs on Referral section scores. The later three CMHCs were among those with the highest scores on this section. Post hoc analysis of the Engagement section showed differences among centers; however, none were statistically significant. This analysis confirms that of the seven sites that completed this phase of the study, variability in the sample was present and able to be detected across the different centers. Because these differences primarily occur in the Referral section scores, it is likely that the differences are attributable to differences in referral procedures and documentation at those sites. These may be areas demonstrating a need for programmatic attention or they may be the result of adaptations made to practice to accommodate some aspect of providing services in a community setting unique from the others included in this sample that is not accounted for in the fidelity monitoring procedure. Though these differences were found to be statistically significant, all scores fell in a range that are considered by the research team to represent adequately high levels of fidelity to the model. Therefore, these differences may be used to examine what structural and procedural or documentation differences are present in these two centers that may need to be addressed through implementation training. Findings from this follow-up examination will inform: 1) statewide training on implementation of the PST Practice Protocol, and 2) technical assistance provided to PST providers and their individual CMHCs that supports good fit between implementation of the protocol with fidelity while accounting for a variety of center practices (see Next Steps).

Fidelity Monitoring Procedure

Researchers also tracked and analyzed which portions of the scoring tool were collected via chart review versus interview—statewide and by CMHC site—in order to determine efficacy of the procedure and make any needed refinements. Of the protocol items that were scored as having been delivered during service provision, 77.15% were collected via review of medical records and 9.91% were collected via qualitative interview, statewide. These data will be used by researchers to refine data collection procedures by identifying which questions to target during the short qualitative interview with service providers and which are routinely documented in medical records. For example, Table 4 shows that questions #6, 16, and 17 were often not present in the charts but were able to be collected through interviews with providers. Therefore, these questions will be routinely asked during all future fidelity interviews. Site specific data was provided to each site to inform future practice. For a summary of how each question was primarily collected, see Table 4. Items in the column labeled “Not Present” are those items that were present neither in the medical record review nor during the interview, and were scored as not being provided. For example, evidence that Item #1 (*The Provider talks to the family about their needs before making a referral*) was provided was present in 78.1% of charts. This item was collected by interview in 10.1% of cases and was not evidenced in records or interviews in 8.0% of cases. Overall these data reveal that the indicators that make up the PST Practice Protocol Scoring Tool can be assessed effectively using a procedure that combines a medical records review along with a short qualitative interview of key staff.

Table 4
*Summary of Data Collection Source for Fidelity Monitoring of Parent Support and Training Protocol
 (Statewide, N = 237)*

Indicator	Chart (%)	Interview (%)	Not Present (%)
The provider talks to the family about their needs before making a referral.	78.1	10.1	8.0
The provider considers how PST service can help support the family's needs when thinking about making a referral.	80.2	7.6	8.4
The provider adequately describes to the family the service and how it can help the family before making a referral.	78.9	7.2	10.1
The family agrees to be referred to the PST service.	84.8	5.5	5.9
The provider refers the family to PST service.	85.7	5.1	5.5
The provider chooses a PST who will be a good match for the family's needs.	19.4	58.6	18.1
The PST prepares for the first meeting with the family.	70.5	15.2	10.5
The PST quickly makes contact with the family to schedule the first appointment.	75.5	8.4	12.2
The PST spends the first appointment getting to know the family.	84.4	8.0	3.8
The PST asks and talks to the family about their needs.	89.5	5.1	1.7
The PST asks the family how Parent Support Services can help.	76.8	11.0	8.4
The PST and family meet in a way that is comfortable for the family.	89.9	2.5	3.8
The PST begins new interventions only when the family is ready for them.	81.0	6.3	8.9
The PST listens to the family in a way that helps the family feel like they are "being heard."	82.3	8.4	5.5
The family does not feel judged by the PST.	87.3	5.1	3.8
PSTs who are also parents of children with SED/special needs may share personal information with the family to help trust the PST.	4.6	81.9	9.7
The PST describes his or her role to the family and how it is different from a friendship.	8.4	81.0	6.8
The PST describes to the family how he or she works with the other providers on the family's treatment team (case manager, therapist, etc.).	90.3	3.0	3.0
The PST and other members of the family's treatment team work together to provide the right services to help the family.	92.4	.4	3.4
The PST supports the family in choosing their own goals.	93.2	0.0	3.0
The PST encourages the family to participate in their child's treatment.	87.3	0.0	8.9
The PST is available to the family as needed.	89.0	2.1	5.1
The PST listens to the family's concerns.	92.8	2.5	.8
The PST gives the family information, resources, and strategies.	89.5	0.0	6.8
The PST helps the family feel hopeful.	92.0	0.0	4.2
The PST educates the family on parenting skills.	92.0	0.0	4.2
The PST educates the family on how to use behavior management	87.8	0.0	8.4

skills.			
The PST educates the family on coping skills.	77.2	0.0	19.0
The PST educates the family on skills to handle a crisis.	85.7	0.0	10.5
The PST gives the family information about the child’s medication or diagnoses.	58.6	0.0	37.1
The PST helps the family understand choices or services given by other providers.	82.3	2.1	11.4
The PST helps the family work with the school to help their child succeed.	65.0	0.0	30.8
The PST helps the family work with other mental health providers to meet their needs.	87.3	0.0	8.4
The PST helps the family with the SED waiver process.	83.5	0.0	12.2
TOTAL MEAN PERCENTAGE	77.15	9.91	9.07

Strengths

Through the course of data collection, numerous strengths were identified across sites. The following strengths are an aggregation of those which were identified throughout this phase, as well as those strengths associated with the research method chosen for data collection.

Study Method Strengths

1. Reviewing medical records to collect data requires less time commitment from service providers.
2. Including a short, targeted qualitative interview conducted in conjunction with the medical records review ensures that rich and complete data is collected.

Site Strengths

1. The CBS directors involved in this phase of study all acknowledged the uniqueness of PST services as being valuable for the parents and support providers of PST services to build strong relationships with caregivers.
2. Several CBS directors provided support and sensitive supervision for the advocacy nature of the service within the agency. For instance, one director supports the PST providing feedback to staff about ways to integrate family voice in their service delivery and encourages the PST to coach newer CBS staff on family engagement strategies.
3. Several PST providers involved in this year’s work have longevity in their roles as PST Providers. It is clear from the review of records and the interviews conducted that these PST providers build strong relationships with staff and families and consistently refine effective techniques to engage caregivers in their child’s treatment. These PST providers have become resources within their agencies and communities.
4. Several PST providers served simultaneously as wraparound facilitators in the agency’s CBS programs. This innovative arrangement allows for PST providers to: 1) have a big picture view of the treatment process; 2) coach families on what may be needed or

make sure they get services that are outlined on the treatment plans; and 3) direct the treatment planning process in a family-centered way that ensures family involvement and inclusion in decision-making.

Limitations

Because this fidelity review was a historical review of charts rather than data collection of new cases, a companion implementation tool, The Needs Assessment for Referral to Parent Support and Training Services, was not able to be used in conjunction with the scoring tool for this review (see Appendices A and B). This tool was designed to help practitioners and families individualize which PST interventions are most necessary during provision of services and also allows researchers to identify and score only those interventions selected mutually by the treatment team and family. Since this tool was not used for the purposes of this review, each case received a score for every possible PST intervention in section III of the protocol, regardless of individual need. Therefore, the scores in section III may be artificially low in some cases. Because this procedure was used with all cases, individual center scores may still be compared with statewide scores and overall, section III scores remained high despite this limitation.

Additionally, during interviews with site administrators, many referenced improvements made to documentation and medical recordkeeping in recent years. Because this report is based on a historical review of records from January 2008 through December 2010, these improvements may not be reflected in this analysis.

Finally, also due to the historical nature of this review, not all PST providers whose records were reviewed are still currently employed with the respective centers. Therefore, they were not able to be interviewed. This factor may also have led to some artificial lowering of fidelity scores as components unique to those providers' individual practice that were not documented in the chart were unable to be gathered. However, due to the overall high fidelity scores at individual sites—as well as statewide—we conclude that the effect of this limitation was minimal.

Feedback

Individual site reports were prepared for each of the eight CMHC sites to report the individual and statewide results of this research phase. Conference calls were held in June 2012 to review the reports and gather feedback from participants. The following information is an aggregation of the feedback provided by PST providers and CBS administrators who participated in these reviews.

1. Implementation tools will be useful as the CMHC system transitions into KanCare.

As the community mental health system moves into KanCare, the implementation tools (Needs Assessment and PST Practice Protocol) lay the foundation for meeting the demands and requirements within a managed care context. For example, programs will be able to show adherence to a model and short-term outcomes that are achieved after 90 days of PST services provided.

2. Findings can be utilized to sustain Family Centered Systems of Care funding.

Family Centered Systems of Care quarterly reporting requires CMHCs to report if their agency uses these funds for services that fit within the evidence-based practicum continuum. This research supports classification of PST practice as a supported program or practice because there are writings that articulate a theory of change and that describe the components of the program. Additionally, in collaboration with the KU School of Social Welfare PST Research Team, local programs can now demonstrate adherence to model fidelity with implementation tools that KU has developed (PST Practice Protocol Scoring Tool and Needs Assessment).

3. The Needs Assessment provides a common language for parents and providers and documents the focus of PST work.

The Needs Assessment will provide a structure for PST providers to assess, “Do they (parents) understand me and do I understand them?” Use of this tool also provides a common language to help discuss services effectively and provides something concrete that can be reflected on with families to bring focus back to treatment goals and possible interventions.

4. This work should be shared with the Children’s CBS Supervisors at their quarterly meeting in August 2012.
5. Training that targets effective collaborative teaming will contribute to successful integration of the PST role on the treatment team and in achieving fidelity to the PST model.
6. Flexibility will be essential for success in implementing the PST model and fidelity monitoring procedures at the CMHC level.

CMHCs have established expertise in how to serve youth and families of their communities. An ongoing iterative dialogue between researchers and CMHC staff will increase the likelihood of successful model implementation and ultimately in achieving desired outcomes.

Conclusion

This phase of the Parent Support and Training research study sought to: 1) establish a statewide baseline level of fidelity to the PST Practice Protocol; 2) validate the PST Fidelity Scoring Tool for use as a way to assess fidelity to the PST Practice Protocol; and 3) determine efficacy of the fidelity monitoring procedure consisting of medical records reviews in conjunction with one short qualitative interview per site.

Via review of medical records and interviews conducted at eight CMHC sites, we have established that a high baseline level of fidelity to the PST Practice Protocol does currently exist in practice in Kansas CMHCs. Because this model is currently in place at a high level, future work will focus on implementation training to the PST Practice Protocol rather than comprehensive retraining of all providers. For details of this training see the Next Steps section. This finding of high fidelity also provides support for the view that the PST Practice Protocol establishes a model of practice that provides structure to the service while maintaining flexibility for implementation in diverse service settings. The eight participating sites for this phase were geographically and structurally diverse and were all able to maintain adherence to the model at a high level. Second, reliability and validity of the PST Practice Protocol Scoring Tool has been established confirming that the scoring tool is a reasonable measure of provider fidelity to the PST model in practice. Interrater reliability, internal consistency reliability, and content validity were established at high levels through data collection methods as well as statistical analysis. Though assessment of construct validity will be ongoing in the next phases of research, we were also able to establish support through maximum likelihood factor analysis for the structure of this measure which includes three subscales—Referral, Engagement, and Intervention. Therefore, this measure will be integrated in its current form in to the fidelity monitoring protocol that will accompany future training.

Finally, we established this method of fidelity monitoring as an efficacious method of gathering data to assess fidelity using the scoring tool. Though most information was accessible to the research team via review of medical records, the short qualitative interview was a necessary component to add context and augment the information collected in the medical charts. Future fidelity monitoring will be informed by the data gathered in this phase and interview questions will be revised accordingly.

In conclusion, the findings from this phase of the Parent Support and Training research study establish a reliable, valid, and efficacious method of monitoring fidelity to the practice of PST services in diverse community practice settings. They also provide a baseline that informs planning and provision of future training and implementation supports. This is an essential step in moving forward toward completion of a training and fidelity evaluation package for Parent Support and Training services in Kansas.

Next Steps

The next phase of the project has two components. The first is to develop and provide live regional trainings to providers of PST services for PST Practice Protocol implementation. Because this practice model is currently in place at a high level of fidelity and comprehensive retraining of all PST providers is not necessary, training efforts in FY13 and FY14 will focus on: 1) implementation training of the PST Practice Protocol; 2) the purpose of and procedures for future statewide fidelity monitoring of the protocol; and 3) technical assistance available to sustain high statewide fidelity to the protocol. This implementation package is particularly important to establish at this time as the CMHC system transitions into KanCare.

At least two face-to-face trainings will be offered by June 2013, and will be available to all providers who are not participating in the simultaneously conducted evaluation of outcomes. Four live, regional trainings will be offered in all subsequent years. The implementation training will involve initial didactic and experiential instruction on implementing the PST Practice Protocol along with strategies for adapting the intervention to suit individual style, organizational fit, and community and family customs without sacrificing fidelity. Curriculum will focus on: 1) history and development of the PST service; its core values and theoretical underpinnings; 2) the unique role PST providers play on children's mental health treatment teams; 3) core components of the PST model and how each links to the model's core values; 4) a formula for adapting core components without sacrificing fidelity; 5) effective collaborative team processes; 6) billing mechanisms that support the PST role; 7) approaches that support effective provider responses when sensitive situations arise; and 8) the purpose of and procedure for future monitoring of fidelity to implementation of the PST model. This training will meet the SRS training requirement for provision of PST services.

Post-implementation training support and technical assistance will be provided to PST providers, their supervisors, and agency administrators to assure a good fit between implementation of the PST model and organizational policies, procedures, resources, and customs. A PST specific technical assistance website will be developed in collaboration with PST Statewide Network, administrators, and the UTAG. The purpose of the website will be to facilitate connection and peer-support for PST Providers and give providers access to implementation tools. The website will also be linked to national resources that support the integration of family voice in behavioral health services delivery.

The procedures for fidelity monitoring of implementation of the PST Practice Protocol will be refined as part of the PST model live training package to be conducted in the second half of FY13 and will commence in FY14. Initial fidelity monitoring will be conducted within three to six months following provider participation in a face-to-face training.

The second component of the upcoming phase of the research project—the evaluation of PST Practice Protocol outcomes—will be conducted over the course of two years (FY13 and FY 14). This component of the project seeks to gather data on child and family outcomes in order to determine whether provision of high fidelity PST services leads to better outcomes for families

(See Appendix C for the structural equation model that will be tested). This is the next step in establishing PST as an evidence-based practice. Researchers have designed a method to test implementation of the PST model that will provide empirical support for the theory of change and identify effects that PST services specifically have on caregiver and youth outcomes.

We hypothesize that high fidelity PST service may lead to increased parenting skills, caregiver self-efficacy, perceived social support, caregiver hopefulness, caregiver empowerment, and decreased caregiver strain, which will result in increased home stability and school attendance. In order to test this hypothesis, participating sites will be asked to: 1) have providers recruit all new families referred to PST services to fill out a short questionnaire at referral and again after 90 days of service; 2) fill out the Needs Assessment (Appendix A) with families during the referral process; 3) have the PST providers and Wraparound Coordinators complete a short questionnaire about team and family involvement for each case after 90 days of service; 4) provide access to medical charts of all participating families for researchers to conduct a review to assess fidelity to the PST Practice Protocol; and 5) receive individualized on-site training on the PST Practice Protocol after completing data collection. The individualized training will be provided in place of the training offered to other providers. This training will focus on strengths and areas of need identified during data collection and will also meet the SRS training requirement for provision of PST services.

The final product—a culmination of all phases of the PST research project—will be a comprehensive package of an evidence-supported practice model of PST services. This package will include a practice protocol, live training, technical assistance supports, web-based implementation tools, on-site consultation, and fidelity monitoring procedures.

References

- Byrnes, K., Davis-Groves, S., Byers, K., Johnson, T., & McDonald, T. (2010). PST practice protocol: Parent support and training (PST) services model for Kansas community-based mental health services teams for children and families. Lawrence, KS: University of Kansas School of Social Welfare, Office of Child Welfare and Children's Mental Health.
- Davis-Groves, S. A., Byrnes, K., Byers, K., Johnson, T., & McDonald, T. (2010). The parent support and training services: The PST practice protocol, outcomes, and fidelity monitoring procedures. Lawrence, KS: University of Kansas School of Social Welfare, Office of Child Welfare and Children's Mental Health.

Appendices

Appendix A: Needs Assessment and PST Fidelity Scoring Tool

Appendix B: Parent Support and Training (PST) Needs Assessment and Fidelity Scoring Tool:
Development and Administration

Appendix C: Parent Support and Training Theory of Change Structural Equation Model

Needs Assessment for Referral to Parent Support and Training Services

Parent Support and Training (PST) is a service provided to parents of children with SED. This service is intended to provide training and support to 1) help families actively participate in their child's mental health services; 2) increase their ability to provide a safe and supportive environment for their child; and 3) help implement and reinforce skills learned in the mental health treatment process. Listed below are some tasks/activities PST Services can help with.

Please check all tasks that may be helpful at this time for you as a caregiver of a child with SED.

My family needs:

- Support to help choose and prioritize treatment goals.
- Help identifying ways to participate in my child's treatment.
- A support person to be in contact with me at least once a month to talk about what my family needs.
- A support person to listen to my concerns so I feel heard.
- Information, resources and strategies to help meet my families' needs.
- Support to help me feel hopeful about parenting a child with mental health needs.
- Information about parenting skills and strategies.
- Information and coaching about behavior management skills and strategies.
- Information and coaching about using coping skills.
- Support and coaching about using my child's crisis plan.
- Information about my child's medication or diagnoses.
- Help understanding choices or services given by other providers.
- Help working with my child's school to help them succeed.
- Help working with my child's other mental health providers.
- Help with the SED Waiver process/paperwork.

Client Name _____ Date _____ Client ID _____

PST PRACTICE PROTOCOL FIDELITY SCORING INSTRUMENT

The following numbered items are required indicators of quality PST practice. In order to meet any indicator at least one action step listed below the indicator must be carried out. Check the box next to any action step you completed. Additional action steps may be added in the blank lines provided in order to customize the PST Practice Protocol to match agency policy or regional/cultural needs. If an indicator has been met, enter "1" in the checkbox next to the indicator to indicate YES. If an indicator has not been met, enter "0" in the checkbox to indicate NO.

Section I: Referral Process/Understanding Needs of Families

- Provided*
- 1. The provider talks to the family about their needs before making a referral.**
- Provider talks to the family about what they need.
 - _____
- 2. The provider considers how PST service can help support the family's needs when thinking about making a referral.**
- Provider documents how PST service can help support the family's needs.
 - Provider discusses family's needs with PST.
 - Provider discusses family's needs with supervisor.
 - _____
- 3. The provider adequately describes to the family the service and how it can help the family before making a referral.**
- Provider describes some of the things PST can do to help parent(s) with the child.
 - Provider describes that PST service would be for the parent(s) and the rest of the family, as opposed to other services that focus primarily on the child.
 - Provider describes that PST is a veteran parent (if applicable).
 - Provider gives parent(s) a written description of PST services.
 - _____
- 4. The family agrees to be referred to the PST service.**
- Provider checks with parent(s) to confirm that they want to be referred.
 - _____
- 5. The provider refers the family to PST service.**
- Provider completes referral form and submits to appropriate person at the agency.
 - Provider introduces parent(s) to PST in person.
 - Provider tells PST that family is being referred.
 - _____

-
- 6. The provider chooses a PST who will be a good match for the family's needs.**
 - Provider refers parent(s) to a specific PST who shares similar characteristics or experiences with the family (if available).
 - _____

- 7. The PST prepares for the first meeting with the family.**
 - PST talks about the family with at least one provider who will be working with them before contacting the family for the first time.
 - PST reads child's chart before contacting the parent(s) for the first time.
 - _____

- 8. The PST quickly makes contact with the family to schedule the first appointment.**
 - PST contacts parent(s) by phone to set up first appointment.
 - Provider introduces parent(s) to PST in person.
 - _____

RAW SCORE-SECTION 1
SECTION I FIDELITY SCORE
SECTION I COMMENTS:

0
0.00%

Section II: Initial Engagement and Immediate Priorities

- Provided*
- 9. The PST spends the first appointment getting to know the family.**
- PST shares basic information about the PST service and himself or herself to help the family feel comfortable.
 - PST invites parent(s) to talk about themselves in a way that is comfortable for them.
 - _____
- 10. The PST asks and talks to the family about their needs.**
- PST asks parent(s) what they feel their strengths and challenges are.
 - PST asks parent(s) what they feel they need help with.
 - _____
- 11. The PST asks the family how Parent Support Services can help.**
- PST asks parent(s) what she/he can do that would be helpful.
 - PST explains that PST services vary according to what a family needs.
 - PST gives examples of ways that Parent Support Services have helped other families.
 - _____
- 12. The PST and family meet in a way that is comfortable for the family.**
- PST meets with the family at a location that is comfortable for the family.
 - PST meets with the family at a time that is comfortable for the family.
 - _____
- 13. The PST begins new interventions only when the family is ready for them.**
- PST suggests new intervention to help address a challenge or need identified by parent(s).
 - PST respects the choice of the parent(s) about whether to try suggested new intervention.
 - _____
- 14. The PST listens to the family in a way that helps the family feel like they are “being heard.”**
- PST pays attention by looking at family members as they talk.
 - PST encourages family members as they talk by nodding or saying “yes” or “uh huh.”
 - _____
- 15. The family does not feel judged by the PST.**
- PST listens to the family in a way that helps the family feel like they are “being heard.” (Indicator 14)
 - PST normalizes the family’s experience by sharing common experiences from other families with youth with SED.
 - _____
- 16. PSTs who are also parents of children with SED/special needs may share personal information with the family to help trust the PST.**
- PST gives the parent(s) information about his or her personal experience caring for a youth with SED/special needs as it relates to the needs or challenges of the parent(s).
 - _____
-

-
- 17. The PST describes his or her role to the family and how it is different from a friendship.**
 - PST describes to the parent(s) how their relationship is professional and confidential, the same as the other treatment team staff the family works with.
 - _____

- 18. The PST describes to the family how he or she work with the other providers on the family's treatment team (case manager, therapist, etc.).**
 - PST describes how he or she talks with other providers working with the family to coordinate how they each will help the family reach their goals.
 - PST and other providers meet jointly with the family to discuss how they work together to help the family reach their treatment goals.
 - _____

- 19. The PST and the other members of the family's treatment team work together to provide the right services to help the family.**
 - PST talks with other providers about what each is working on with the family.
 - _____

RAW SCORE-SECTION II
SECTION II FIDELITY SCORE
SECTION II COMMENTS:

0
0.00%

-
- 26. The PST educates the family on parenting skills.**
 PST educates, coaches, and/or gives examples on various parenting skills that can help address a challenge or need identified by the parent(s).

- 27. The PST educates the family on how to use behavior management skills.**
 PST educates, coaches, and/or gives examples of behavior management skills that can help address a challenge or need identified by the parent(s).

- 28. The PST educates the family on coping skills.**
 PST describes to the parent(s) coping skills used by other families with youth with SED who have faced similar situations.
 PST coaches the parent(s) on using coping skills that can help address a challenge or need identified by the parent(s).

- 29. The PST educates the family on skills to handle a crisis.**
 PST coaches the parent(s) on how to use their child's Crisis Plan to address a challenge or need identified by the parents.
 PST describes crisis management skills used by other families with youth with SED.
 PST coaches the parent(s) on ways to talk to other treatment team members about their child's Crisis Plan.

- 30. The PST gives the family information about the child's medication or diagnoses.**
 PST gives the parent(s) educational materials and resources about the child's medication prescribed by the doctor and/or diagnoses given by the therapist or doctor.
 PST coaches the parent(s) on ways to talk to the doctor and/or therapist about the child's medication or diagnoses.

- 31. The PST helps the family understand choices or services given by other providers.**
 PST reviews with the parent(s) information given by other providers about choices and services to help answer any questions they may have.
 PST coaches the parent(s) on ways to talk with other providers so they can get their questions answered about choices and services given by other providers.

- 32. The PST helps the family work with the school to help their child succeed.**
 PST educates, coaches, and/or gives examples to the parent(s) on ways to work with the school that can address a challenge or need identified by the parent(s).

- 33. The PST helps the family work with other mental health providers to meet their needs.**
 PST educates, coaches, and/or gives examples to the parent(s) on ways to work with other mental health providers to address a challenge or need identified by the parent(s).

- 34. The PST helps the family with the SED waiver process.**
 PST educates, coaches, and/or gives examples to the parent(s) on any part of the SED waiver process that is a challenge or need identified by the parents.



RAW SCORE-SECTION III
SECTION III FIDELITY SCORE
SECTION III COMMENTS:

0
#DIV/0!

TOTAL RAW SCORE
TOTAL FIDELITY SCORE

0
0.00%

Appendix B: Parent Support and Training (PST) Needs Assessment and Fidelity Scoring Tool: Development and Administration

The PST Fidelity Needs Assessment and Fidelity Scoring Tool are components of the PST Practice Protocol that were developed to provide a quantitative measure of fidelity (fidelity score) to the PST Practice Protocol in the practice environment. The purpose of these tools are to provide a tangible score indicating how well the model is being followed by providers and identify any areas of practice that may need attention. This is an important part of the research process and may also be a valuable practice/supervisory tool. The following is a description of how this tool was developed and how it is administered to establish a fidelity score.

Indicator Weighting

Each indicator of the PST model was tested during phase III of the research project to establish consensus among stakeholders (PST providers, caregivers, administrators and other service providers, funders/policy makers) on the overall importance of each indicator. This resulted in an average score for each indicator that ranges from one (not at all important) to five (very important). These average scores were used to weight each indicator in the scoring tool. This weighting ensures that indicators with higher importance scores count more toward the total fidelity score than indicators that were considered less important.

There are two exceptions to this weighting guideline. Indicator #6, *The provider chooses a PST who will be a good match for the family's needs*, and #16, *PSTs who are also parents of children with SED/special needs may share personal information with the family to help the PST*, are weighted as zero. Indicator #6 may not be possible to carry out in agencies with only one PST, and therefore cannot be required as part of the protocol. Because self-disclosure is an individual choice at the discretion of each professional, indicator #16 also cannot be required. Therefore both indicators are included in the scoring tool as practice options but do not count toward or against the final fidelity score.

Sections I and II Scoring

Sections I and II of the scoring tool include the indicators from sections I and II of the practice protocol about the referral process and initial engagement with families. Each of these indicators is considered essential according to the consensus process to implementation of PST services. When administering this scoring tool, if an indicator was carried out, the administrator would check the box next to the action step that describes how the indicator was carried out, and enter a "1" in the "Provided" box next to the indicator. If the indicator was not carried out, the administrator would enter a "0". Entering a "1" triggers the weight score of that indicator to be entered in to the scoring formula for that section, as well as for the overall score. Entering a "0" triggers a score of 0 to be entered in the scoring formula for that indicator.

Needs Assessment and Section III Scoring

Section III has an additional scoring component that reflects adherence to the family-driven paradigm used in community-based services. The indicators in this section involve what interventions the PST

provider has implemented with a family. Because not all families have the same needs and therefore will not necessarily receive every possible intervention, this is taken into account in scoring.

In order to complete section III, the PST Fidelity Needs Assessment must first be completed by/with the family. This assessment provides an opportunity for the family to identify which specific needs PST services may help them address. Only those needs identified by the family, or the provider in consultation with the family, are measured and therefore count toward the final fidelity score. Each indicator in this section has a scoring box labeled "Need" and "Provided." Both boxes should be scored with a "1" for yes and a "0" for no. For example, if an indicator was checked as a need on the needs assessment but was then provided by the PST provider, the score would read "1" in the "Need" box and "1" in the "Provided" box. Action steps carried out to meet the indicator should also be checked or added in this section as well.

Fidelity Score

Once the fidelity scoring tool is completely filled out, scores for each of the three sections, as well as a final score, will be automatically generated. All of these scores are a proportion of how many indicators were met in relation to how many were required/possible. Fidelity scores should not be interpreted as passing/failing, but rather as a tool to guide supervisor and practitioner discussions and illuminate areas of service provision that may need increased attention.

