

#### Accomplishments

#### January 1 – December 31, 2017

The Boone County Schools Mental Health Coalition is a multidisciplinary collaborative among Boone County's six independent school districts, the University of Missouri, College of Education (COE), Department of Educational School and Counseling Psychology (ESCP), the Missouri Prevention Center (MPC), and the School of Social Work (SSW).

<u>Mission Statement</u>: To promote a coordinated, multidisciplinary, collaborative initiative through: (a) implementation of a scientifically-based model of prevention and intervention, (b) reduce contextual risk factors and promote existing protective factors, and (b) provide access for in-risk youth and their families to comprehensive mental health assessment and wraparound case management services.

The project initiatives include the following:

- Develop and implement a county-wide ecological assessment system to gather data on risk and protective factors that are predictive of poor school, mental, and life course outcomes;
- Provide professional development to school personnel in Boone County in evidence-based practices shown to improve school climate and individual student and family functioning.
- Support school-based teams to implement evidence-based programs with at-risk and in-risk youth, and use data to monitor progress of student outcomes;
- Improve the coordination of information and services for at-risk youth and their families;

### **Basic Overview:**

Since the Coalition was funded in January of 2015, this partnership between County schools and the University of Missouri has resulted in a fully enacted coordinated system of prevention and intervention. Each year, schools in Boone County and one private school conduct universal screening using both teacher (K-12) and student report (3-12), occurring three times per year. These data are disseminated to schools through a fully functional web-based clinical dashboard system, which provides schools reports showing the number of students reported to have each risk indicator.

Using a public health model of risk to provide schools feedback on areas of need for universal prevention efforts, school reports indicating areas of high risk (i.e., 20% or more of students were reported to have this risk indicator) are represented in red, areas with some risk (15-19% of students are reported to have the risk indicator) are represented in yellow, and areas with low risk (less than 15% of students are reported to have the risk indicator) are represented in green. These data can then be used by school level problem solving teams to assess areas of concern at the school and grade levels and determine if and what universal prevention efforts can be put into place. In addition, individual student reports are generated using a similar red, yellow, and green system to indicate students who in comparison to their peers are at risk across the various risk constructs. These reports can be used to determine the appropriate next steps toward supporting those students at greatest risk (e.g., develop individualized behavior support plan, small group counseling, etc). Each school administrator and their problem solving teams have access to this dashboard through a secure server. In addition, all

district administrators have their own unique account to view all building's data through a secure server. This provides district administration with a comprehensive account of risk in their district and across levels.

Further, a regional coordinator, school-based mental health clinicians with advanced degrees and experiences in working with youth with mental health problems, are placed with each school building. These regional coordinators provide support in administration of the tri-annual screener, support in interpreting the data, consultation with problem solving teams in determining universal, targeted, and individualized supports for students, and support through implementing direct services to youth in school buildings.

The table below indicates where regional coordinators are placed across districts for the current 2017-2018 school year. Drs. Shannon Holmes, and Tyler Smith are postdoctoral fellows funded by the US Department of Education to work with Dr. Reinke. Under her supervision they volunteer to work with the Coalition. Further, Lauren Henry, Kristin Hathaway, and Emily Malugen are advanced doctoral student in the MU School Psychology program completing their advanced practicum work with the Coalition. All of these individuals bring a wealth of background and experience to our team as we continue to partner with our schools.

In addition, Dr. Daniel Cohen works with the Coalition to support data collection, data management, data analysis, and data reporting. Dr. Cohen was a regional coordinator in past years and brings understanding of the model as well as experience in managing large scale data for program evaluation.



Boone County Schools Mental Health Coalition: 2017 – 2018 Regional Coordinator Assignments

Chelsea Clark Clarkcm@missouri.edu	Janna Buell Buellj@missouri.edu	Tara Collier Colliertl@missouri.edu
Cedar Ridge Elementary	*Centralia School District	Beulah Ralph Elementary
Derby Ridge Elementary	*Sturgeon School District	West Elementary
Oakland Middle	Midway Heights Elementary	Paxton Keeley Elementary
Two Mile Prairie Elementary	Fairview Elementary	West Middle
		Battle High
Lindsay Oetker Oetkerl@missouri.edu	Jenna <u>Strawhun</u>	Becky Hart Hartrl@missouri.edu
Grant Elementary	*Hallsville School District	*Southern Boone School Distric
Grant Elementary Lee Elementary	*Hallsville School District Lange Middle School	*Southern Boone School Distric Rock Bridge Elementary
Lee Elementary	Lange Middle School	Rock Bridge Elementary



	Shannon Holmes holmessr@missouri.edu		Tyler Smith Lauren		Tyler Smith		-
Alpha Hart E	Alpha Hart Elementary		Battle Elementary		nsive Education RE)		
Benton Ele	Benton Elementary		New Haven Elementary		lementary		
	Shepard E	lementary					
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*Private and Parochial Schools	*Harrisburg School District
	Blue Ridge Elementary

# The following provides a summary of activities for a series of goals for this school year. The current report provides information on work completed since January 1, 2017 through December 31, 2017.

Goal 1: Screen all students Kindergarten to 12<sup>th</sup> grade using teacher report three times per school year.

Teacher checklist data were gathered three times between October and May of this school year for each school. Data are presented for the four administrations that occur within the window of this funding cycle Teachers reported on students grades K to 12 on indicators related to academic competence, attention, peer relationships, social skills, internalizing problems, externalizing and self-regulation problems, and high-risk indicators such as bullying and suicidal ideation. This annual report documents checklist administration in January, April/May (end of school year) and October of the next academic year. In January a total of **23,041** students were assessed. In April/May a total of **23,069** students were assessed. At the start of the 2017-2018 academic year, **23,132** students were assessed. These data were immediately available after each round to schools for use toward guiding interventions via the clinical dashboard system. **All schools in the county completed the teacher checklist three times across the academic year**.

### Goal 2: Screen all students 3<sup>rd</sup> to 12<sup>th</sup> grade using student report three times per school year.

The student checklist was completed with all students' grades 3 to 12. The administration occurred at the same time as the teacher checklist in each school building, three times between October and May of the academic year. Regional coordinators, counselors, and teachers administered the student checklist to all students. Administration protocols and scripts were developed and administrators read the script as students complete the assessment to ensure standard administration to all students. Each question was read aloud, with definitions for items needing additional explanation. On average the student assessment takes between 7 and 15 minutes to complete. Feedback indicates that students seem to understand the items and feel comfortable answering the items.



In January 2017, **13**, **617** students in grades 3 to 12 completed the student checklist. In April/May of 2017 (end of the school year) **9**,**642** students completed the checklist. In October of 2017 (beginning of the school year) **15**,**698** completed the student checklist. These data were provided back to the schools to guide interventions. **All schools in the county completed the student checklist three times across the academic years**.

*Quality improvement:* There was a drop in the number of students who completed the student checklist at the end of the school year in 2017. This we believe occurred for two reasons:

1) Some schools, particularly the secondary schools feel burdened by the administration of the student checklist. Many schools waited too long into the school year to conduct the checklist. School staff and students lost interest in completion of the checklist due to it being so close to summer break.

Solution: As a result the Coalition worked with school administrators to set specific dates for administration over the course of the next school year (October, January, and April) to avoid the checklist being conducted too close to the end of the year. These data collection points were very thoughtfully determined as the second and third administration occur after students have been on break and during times of the year when students often present increased risk.

2) Students, particularly secondary students, had less interest in completing the student checklist as the school year progressed.

<u>Solution</u>: Dr. Reinke attended a meeting with Dr. Stiepleman and his high school advisory committee made up of high school students from every building in Columbia Public Schools. During the meeting Dr. Reinke ask the students about concerns, questions, or suggestions they had regarding the about the checklist. During the discussion the students brought up that they had never received a specific explanation of the purpose or use of the checklist data. <u>As a result a written explanation to students was included in January 2018 administration of the student checklist</u>. In addition, there was discussion of finding ways for high school student groups to use the aggregated data to inform student initiatives around improving student mental health. <u>We will work to have student groups receive and review the data in our high school buildings to better include them in the process.</u>

# Countywide Data:

Data were provided for **23,132** students in the fall of 2017 across 54 schools, and 6 school districts and one private school. The Coalition clinical dashboard provides reports of data at each round at the district level, school level, grade level, and student level. These data can also be evaluated at the county level. The following powerpoint provides a detailed summary of the findings for the fall administration when standardized by grade level across the sample.





Use of Data in Schools:

The teacher and student checklist data were shared with school administrators and school-based problem solving teams. From these data building identified interventions to help support students individually, in small groups, or on a larger scale such as school-wide, class-wide, and grade-wide. In some cases this may have included referral to an outside agency. Regional coordinators worked with the school-based teams to help with data-based decision making, selection of interventions, support with implementing the interventions, monitoring progress of interventions, and coordinating services with outside agencies. See Figure 1 for the steps in the problem solving and early identification process.







### Intervention Services Provided:

As a result of the checklist data **approximately 7,000 youth have received an intervention to support their social behavioral or emotional health.** This is a conservative estimate as we are still working to adequately document the services provided within Coalition schools that occur as a result of the teacher and student checklist data. While our regional coordinators are involved in many of the interventions, particularly supporting development of universal supports and individualized more intensive supports for students, many times school counselors are using these data to inform their guidance curriculum or form small groups. Our current data do not adequately track how our school counselors may be using the data. This is an area of improvement that we plan to focus on across the upcoming school year. Below, we provide summaries of the number of youth across the 54 school buildings in the Coalition who received or are receiving an evidence-based intervention or are connected to appropriate outside resources based on data from the teacher or student checklist. The numbers are broken down by elementary, middle, and high school. In addition, the target area of the intervention for students within each target area is provided.

- <u>Universal</u> indicates that a school-wide, class-wide, or grade-level intervention was provided.
- <u>Selective</u> interventions are more intensive and occur with a smaller group of students.
- <u>Indicated</u> interventions are the most intensive and are at the individual level.







*Not*e: The interventions were directly linked to data provided by administrations of the teacher and student checklist. The following provides detailed information about the purpose and skills targeted by each intervention focus area.

# Focus Areas:

Attention and Academic Competence interventions focus on increasing executive functioning, on-task behavior, planning, and organizational skills in youth.

**Peer Relations and Social Skills** interventions focus on increasing relationship, communication, bullying, and problem solving skills in youth.

**Internalizing Problems** interventions focus on using cognitive behavioral strategies for decreasing anxiety and/ or depressive symptoms in youth as well as improving self-esteem.

**Self-regulation and Externalizing** interventions focus on impulse control, goal setting, problem solving, emotion recognition, and anger control strategies to decrease disruptive, impulsive, and aggressive behaviors in youth.

**School Engagement** interventions focus on building relationships with adults, supporting student motivation to be successful in school, and making school and course content meaningful and relevant

\*Note: The Coalition has manualizing evidence-based strategies and interventions that can be feasibly implemented in school settings. The manual provides a menu of options for universal, selective, and indicated interventions from which schools can choose to select and implement in their schools. All regional coordinators have access to the manual. In addition, we are finalizing edits to the manual and will have this on the Coalition website before the end of the school year.

Goal 3: Provide universal (school-wide or class-wide) interventions based on screening data.

We have provided universal interventions formulated from the fall, winter, and spring screening data for **5,505 students**. Schools are adopting new universal prevention interventions, such as homework organization and planning systems,



classroom level interventions, and school-wide self-regulation interventions based on the data. In addition, regional coordinators support the use of data with ongoing school-wide interventions such as Positive Behavior Interventions and Supports (PBIS).

# Table 1. Number of Students Receiving Universal Supports

Focus of Intervention	Level	# of Students
	Elementary	423
Attention and Academic Competence	Middle	262
	High	0
	Elementary	1,133
Peer Relations and Social Skills	Middle	1478
	High	0
	Elementary	0
Internalizing Problems	Middle	692
	High	0
	Elementary	1,497
Self-Regulation & Externalizing Problems	Middle	9
	High	0
	Elementary	0
School Engagement	Middle	0
	High	11
Total Since January 2017		5,505



**Determining Effectiveness:** Schools, grade levels, or classrooms that implement universal interventions evaluate the effectiveness of the interventions using declines in risk factors on the teacher and student checklist and existing school data (e.g., office referrals, grades, etc). These data will be available at the end of the academic school year.

#### Goal 4: Provide selective (group-based) interventions to students based on risk identified by screening data.

We have provided selective interventions based off of the fall, winter, and spring screening data to **1,239 students**. School counselors, particularly with the new student report data, are becoming more active in using these data to form groups and implement groups with students. The data below may not adequately reflect the number of students who are receiving services as a result of the screening data. These data are only those groups for which regional coordinators help to coordinate or implement. We expect many more students will receive services as a result of the second round of screening data. In fact, regional coordinators and counselors are already planning groups based on these data. We also would like to gather more precise data as to the number of students who receive services through school counselors (to which we may be less aware) as a result of these data. We continue to collaborate with counselors to build systems and infrastructure to document how many students receive services through school counselors in gathering pre-post data on these groups to determine the efficacy of the groups they implement. This is an ongoing area of growth that we are invested in supporting.

#### Focus of Intervention # of Students Level Elementary 51 Middle Attention and Academic Competence 8 High 34 770 Elementary Peer Relations and Social Skills Middle 154 0 High Elementary 46 72 Internalizing Problems Middle High 11 Self-Regulation & Externalizing Problems Elementary 24

# Table 2. Number of Students Receiving Selected Supports



	Middle	62
	High	1
	Elementary	6
School Engagement	Middle	0
	High	0
Total Since January 2017		1,239

**Determining Effectiveness:** Pre and post assessments specific to the targeted area of concern on completed by teachers and in some instances students. We are using common measures so that student data can be evaluated on a large scale, meaning that while students may be receiving an intervention (e.g., social skills group) in different buildings with different school mental health professionals, the same data are gathered for all these students. This allows us to determine the overall impact of each intervention on the area of risk for students receiving these supports. Below you will find both case examples of implemented interventions and a summary of pre and post data across domains for students for whom data were available. \*Regional Coordinator gather data on all selective interventions that they implement. On occasion school counselors or other school personnel will gather these data on students for whom they provide selective interventions based on the checklist data. Of those students who received an intervention and had adequate data available to evaluate the impact, 311 our 378 demonstrated improvements or 82% of students demonstrated improvements. The following section breaks down this data to specific targeted problem areas.

# Attention and Academic Competence Intervention Effectiveness

In order to evaluate the impact of the Academic Competence programs on student outcomes, student and teacher surveys were administered before and after the delivery of each intervention. The surveys evaluated changes in student engagement, academic competence, problems with attention and concentration and self-efficacy. Blue bars indicate pre intervention scores and orange bars indicate post intervention scores. There were no statistically significant improvements between pre and post measures. Overall, 76% of students demonstrated improvements in behavioral disengagement. self-efficacy, psychological engagement, academic engagement, cognitive engagement, concentration problems, academic competence, inattentiveness, or hyperactivity/impulsiveness.





#### Figure 3. Pre – Post Information on Impact of Group-based Intervention for Attention and Academic Competence



# Social Skills and Peer Relations Intervention Effectiveness

Student identified as demonstrating the need for social skills and peer relations interventions were identified using the checklist data. In order to evaluate the impact of Social Competence programs on student outcomes, teacher surveys were administered before and after the delivery of interventions. Data were gathered across 277 students who received a social skills intervention between January 2017 and May 2017. The survey includes items to evaluate whether students improved in prosocial behavior, emotional regulation, and academic competence. Blue bars indicate pre intervention scores and orange bars indicate post intervention scores. Average score values contained within a green box indicate statistically significant improvements. Results of paired samples t-tests between pre and post measures indicated that there was significant difference between pre and post measures of prosocial behavior, t(276)=-5.27, p < 0.001, emotion regulation, t(276)=-6.86, p < 0.001, and academic competence, t(276)=-2.04, p = 0.04. Overall, **81% of students demonstrated** improvements in prosocial behavior, emotion regulation, or academic competence.



#### Figure 4. Pre – Post Information on Impact of Group-based Intervention for Social Skills and Peer Relations

# Cool School Anti-Bullying Intervention at Elementary Schools

Of the 277 students with data on social skills interventions, 249 elementary students received the Cool School intervention in the spring of 2017. This is a targeted intervention for students struggling with social skills and problems with bullying. The intervention uses web-based interactive modeling lessons to teach students that teasing and bullying is not acceptable and help them learn alternative prosocial behaviors. The outcomes for this intervention are shown here separately for this intervention to evaluate the impact of Cool School specifically.



In order to evaluate the impact of the Cool School on student outcomes, teacher surveys were administered before and after the delivery of the intervention. The survey includes items to evaluate changes in student use of prosocial behavior, emotion regulation, and academic competence. Blue bars indicate pre intervention scores and orange bars indicate post intervention scores. Average score values contained within a green box indicate statistically significant improvements. Results of paired samples t-tests between pre and post measures indicated that there was a significant difference between pre and post measures of prosocial behavior, t(248)=-4.94, p < 0.001, emotion regulation, t(248)=-6.28, p < 0.001, and academic competence, t(248)=-2.00, p = 0.047. Overall, **80% of students demonstrated improvements** in prosocial behavior, emotion regulation, or academic competence.



# Figure 5. Pre – Post Information on Impact of Group-based Cool School Intervention

Note: Green indicates statistically significant improvement in student behavior.

# Cool School Anti-Bullying Intervention - Fall 2017

In fall of 2017, an additional 36 students in grades 3 to 5 received the Cool School intervention based on the Fall 2017 administration of the teacher and student checklist. In order to evaluate the impact of the Cool School on student outcomes, student and teacher surveys were administered before and after the delivery of the intervention. The surveys include items assessing prosocial behavior, emotion regulation, Blue bars indicate pre intervention scores and orange bars indicate post intervention scores. Average score values contained within a green box indicate statistically significant improvements. Results of paired samples t-tests between pre and post measures indicated that was a significant difference between pre and post measures of emotion regulation, t(35)=-2.34, p = 0.03. Overall, **97% of students demonstrated** improvements in self-control, academic self-efficacy, persistence, mastery orientation, prosocial behavior, emotion regulation, or academic competence.





# Figure 6. Pre –Post Information on Impact of Group-based Cool School Intervention

Note: Green indicates statistically significant improvement in student behavior.

Lastly, Cool School was also implemented with 17 students in Kindergarten to Second grade in the Fall of 2017 based on need identified using the checklist data. In order to evaluate the impact of the Cool School on student outcomes, teacher surveys were administered before and after the delivery of the intervention. Average score values contained within a green box indicate statistically significant improvements. Results of paired samples t-tests between pre and post measures indicated that was a significant difference between pre and post measures of prosocial behavior, t(16)=-2.69, p =0.016, and emotion regulation, *t*(16)=-2.22, *p* = 0.042. Overall, **82% of students** demonstrated improvements in prosocial behavior, emotion regulation, or academic competence.





# Figure 7. Pre – Post Information on Impact of Group-based Cool School Intervention

Note: Green indicates statistically significant improvement in student behavior.

# Internalizing Domain Intervention Effectiveness

Data were gathered for a total of 18 students receiving a group-based intervention for internalizing problems between January 2017 and the end of the school year. In order to evaluate the impact of Internalizing programs on student outcomes, student surveys were administered before and after the delivery of each intervention. The surveys include items from the Revised Children's Anxiety and Depression Scale. Blue bars indicate pre intervention scores and orange bars indicate post intervention scores. There were no statistically significant improvements between pre and post measures. Overall, 83% of students demonstrated decreases in depression, generalized anxiety, obsessions/compulsions, panic, separation anxiety, or social phobia.





# Figure 8. Pre – Post Information on Impact of Group-based Intervention for Internalizing Problems

# Cognitive Behavioral Group Based Intervention at High School (Case Example)

Three students identified as at or in-risk in the area of internalizing concerns participated in a small group intervention. The intervention selected to address the identified needs was a cognitive behavioral evidence-based curriculum targeting anxiety symptoms, specifically Panic symptoms. To measure student growth as a result of the intervention, each student was administered the Revised Children's Anxiety and Depression Scale (RCADS). The RCADS provides T scores for the following areas: Depression, Generalized Anxiety, Obsessions/Compulsions, Panic, Separation Anxiety, and Social Phobia. T Scores between 65-69 indicate Borderline Clinical Thresholds and 70 or greater indicate Clinical Thresholds, therefore, higher scores indicate lower functioning. Figure 8 provides a summary of the group's scores before and after the intervention. Results indicate an average decline in the area of Panic from a clinical threshold to a below clinical threshold.



Figure 9. Information on Impact of Group-based Intervention Anxiety and Panic



# **Average Student RCADS Scores**

Goal 5: Provide individualized interventions to students based on risk identified by screening data.

Since January of 2017, 378 students received individualized supports based on checklist data. These interventions typically involve developing individualized behavior support plans to help student exhibiting challenging behaviors, providing individual therapy for depression or anxiety concerns, one on one mentoring with students who are disengaged from school or struggling, case management or connection to outside agencies, or working individually with a student to support the development of social skills.

# Table 3. Number of Students Receiving Indicated or Individualized Supports

Focus of Intervention	Level	# of Students
	Elementary	18
Attention and Academic Competence	Middle	19
	High	8
Peer Relations and Social Skills	Elementary	18
	Middle	5



	High	3
	Elementary	64
Internalizing Problems	Middle	142
	High	9
	Elementary	78
Self-Regulation & Externalizing Problems	Middle	2
	High	1
	Elementary	4
School Engagement	Middle	7
	High	0
Total Since January 2017		378

**Determining Effectiveness:** Progress monitoring data is used to evaluate the effectiveness of individualized supports for students. Specifically, a Direct Behavior Rating (DBR; Chafouleas & Riley-Tillman) as a method to capture progress across three global areas of student behavior: Respectful Behavior, Disruptive Behavior, and Academic Engagement, The DBR asks teachers to provide a rating of the estimation of time students engaged in each of three behaviors. The DBR is a strong choice for progress monitoring due to its high level of technical adequacy, ability to monitor progress across a variety of behaviors with no manipulation of response type, and high level of ease and completion and acceptability by consumers. In particular, progress monitoring can occur daily or weekly and research indicates difficulty-engaging teachers in regular completion of progress monitoring without intensive support. Without completion of progress monitoring measurement, effectiveness of student's most intensive interventions are not properly monitored and therefore will be unlikely to maximize benefits and progress.

# Progress Monitoring of Individualized Function-based Interventions

Individualized supports in the form of daily, function based interventions account for the majority of individualized supports that are ongoing. To evaluate intensive function-based interventions, DBR was completed by student's teacher(s) daily. The use of visual analysis including: examination of trend of data, level, and immediacy are regularly monitored and examined to determine if students are making adequate progress towards individualized goals or there is a need for change to a plan. The following bar graph shows a subset of data demonstrating effectiveness for those interventions in which coalition staff were primary coaches, consultants, or managed plan progress. Thirty-four total students are represented in the following



graph. These students included are those at high levels of risk for social, emotional, behavioral concerns based on our checklist data. While they represent a portion of those students receiving tier 3 interventions and/or at high risk, these 34 students received intensive interventions that were adequately monitored and managed by coalition staff, alongside school staff.

Of the 34 students that received intensive, individualized behavior interventions AND were adequately progress monitored using the Daily Behavior Rating, 25 or 73% of the students demonstrated improvements based on teacher report of DBR data as evidenced by an increase in academic engagement and respectful behavior and/or a reduction in disruptive behavior. Of the students that demonstrated stagnant progress or declines or performance, all interventions have been and continue to be modified as a result of slow progress or declines.

Figure 10. Information on the Progress of Students Receiving Individualized Behavior Supports.



# **Progress Summary of Students Receiving Tier 3** Interventions

# Goal 6: Provide school-based wrap-around services to students with significant risk.

### Interagency Work and the Coalition.

The Coalition began facilitation of Boone County Interagency meetings in February 2017. This resource provides supports and options for students and families who are not eligible to receive services through FACE or who are unwilling to seek services through FACE. BCSMHC staff provide case management for attendees in an effort to improve outcomes for these families who are often difficult to engage in services. Dr. Lou Ann Tanner-Jones directs interagency meetings and follow-up with families.

From February to December 2017, the interagency committee received 34 referrals, and 30 meetings were held with families in attendance. These meetings served to either initiate new or different services for youth and their families and/or coordinate communication and collaboration when multiple agencies serve the family system. Coordination of service



constituted the majority of referrals for 2017 as most families who attended these meetings had several services in place. In many cases these meetings are a point of reference for multiple agencies, such as the Juvenile Office of the Boone County Family Court Services and the Children's Division the Department of Social Services, to check in on youth and family safety, security, school performance and welfare.

In all cases, the BCSMHC Director or Regional Coordinator for the school building for the youth of concern are involved in coordination of communication, agency collaboration and support the connection to additional services and case management, as appropriate. Of these youth, 17 were linked to new services, including new outside agency services (n=6), extra services with Children's Division (n=2) or BBH (n=8) and connection to FACE (n=1). Several individuals in the family system in caretaker roles received referrals and information about adult community services, supports and options for themselves.

Quality Improvement. Determining how to systematically and adequately gather data that is easily summarized has been challenging. Many families are receiving services and the meetings serve to coordinate services. However, we are working to systematize a process and procedures to allow for outcome and process data to be provided.. Beginning in February 2018, data will be gathered on top three problems facing each family, data on families being linked and if these services were helpful. In addition, family satisfaction with the interagency process, stress and coping as a result the interagency process, and outcomes for students will be monitored.

#### Goal 7: Provide professional development to school staff based on areas of need identified by the Coalition screener.

Since January 2017 we have trained 426 school personnel in our Boone County schools in an array of topics related to areas of need identified by the checklist data or by school professionals. These topics have included 1) Understanding and Managing Disruptive Behavior for Primary and Elementary Teachers, 2) Understanding and Managing Disruptive Behavior for Secondary Teachers, 3) Executive Functioning: for Administrators, 4) Understanding and Managing Anxiety for Primary and Elementary Teachers, 5) Understanding and Managing Anxiety for Secondary Teachers, 6) Managing Stress for Teachers, 7) Motivational Interviewing for Special Educators, and 8) Suicidality: An Educator's Role in Prevention. Additionally, we have trained approximately 60 community service providers in effectively coordinating with school personnel for students with mental health problems.

\*Note: All presentations and materials are available on the Coalition website, http://bcschoolsmh.org/for-schools/trainingresources/

Following each training, we request that staff provide feedback on their satisfaction and perceived improvement in knowledge on the topic. For the trainings conducted so far this year, 83% of staff were highly satisfied with the trainings. Whereas, on average across trainings 60% of staff report an increase in knowledge on the trained topics. Some topics teachers and staff felt they were already fairly knowledgeable. We will continue to work on building PDs to fit areas of need based on the screening data. We have discussed developing more "advanced" PDs and having teachers pass a knowledge test prior to moving upward through the PD topics.



# Table 4. Feedback from Professional Development Session attendees January-December 2017

Items		Overall (n = 426)	
		SD	
To what extent are you satisfied with the training you received and the practices covered?	4.18	0.84	
How credible did you find the presenters?	4.61	0.62	
How satisfied are you with the content of the training and the practices covered?	4.27	0.88	
How familiar/knowledgeable were you of the skills trained today <b>BEFORE</b> the professional development session?	3.42	1.00	
How familiar/knowledgeable were you of the skills trained today <b>AFTER</b> the professional development session?	4.24	0.70	

*Note*: Higher scores are better. Range for scoring was 1 to 5.

### \*\*Highlighted Professional Developments:

# Effectively Coordinating Youth Mental Health Care with Schools

In collaboration with Kristen Hawley of the MU Center for Evidence-Based Youth Mental Health and the Family Access center of Excellence (FACE) in Boone County, Betsy Jones & Susan Perkins of Columbia Public Schools, Coalition Directors co-presented a community training to providers in the Columbia area entitled 'Effectively Coordinating Youth Mental Health Care with Schools'. This workshop was provided to approximately 50 providers. Evaluations for 43 attendees are summarized in Table 5 below.

# Table 5. Feedback from Effectively Coordinating Youth Mental Health Care with Schools

	Overall (n = 43)	
Items		SD
To what extent are you satisfied with the training you received and the practices covered?	4.31	0.74
How credible did you find the presenters?	4.73	0.49
How satisfied are you with the content of the training and the practices covered?	4.28	0.85
How useful are the information and practices from the training to you in your everyday clinical practice?	4.29	0.88

*Note*: Higher scores are better. Range for scoring was 1 to 5.

# 'Suicidality' Training for School Personnel

Regional coordinators provided a training for one middle school in Columbia Public Schools entitled: 'Suicidality: An Educator's Role in Prevention'. This training was provided in direct response to identified concerning behavior and risk factors at the school in regard to suicidality and the recently released Netflix show titled: 13 Reasons Why. In particular, this Netflix show has received criticism from the public and many school personnel regarding the contagion effects that have



resulted in response to the topic of suicide as a central theme on this show. Our professional development specifically targeted increasing educator knowledge of actions they can engage in to prevent increased risk of suicidal behavior and reduce contagion effects as a result of peer suicidal behavior. See Table 6 for quantitative feedback from 12 participating staff members. In addition, a counselor contacted the Coalition and provided the following feedback in response to the training provided to staff:

"Let me just say that the Coalition group... did an amazing job covering this topic for our staff. I can't say enough how much I appreciate their time, energy, resources, and reassurance today. This is just what our school needed!"

Columbia Public Counselor

#### Table 6. Feedback from 'Suicidality: An Educator's Role in Prevention' Professional Development Session

Items		Overall (n = 12)	
		SD	
To what extent are you satisfied with the training you received and the practices covered?	4.25	0.75	
How credible did you find the presenters?	4.75	0.45	
How satisfied are you with the content of the training and the practices covered?	4.50	0.67	

*Note*: Higher scores are better. Range for scoring was 1 to 5.

Next steps: Continue to refine the professional development sessions and materials provided to school personnel at the elementary and secondary levels based on feedback and evaluation findings. Continuously provide the opportunity of these trainings to all school personnel in the Boone County schools.

# Fidelity of Implementation

In the field of interventions, fidelity or the 'degree to which interventions are implemented as intended' is considered important and necessary by school staff members. Additionally, high levels of fidelity influence the effectiveness of interventions. Despite the desire from schools staff and noted empirical support for fidelity levels, fidelity is rarely monitored or measured in school settings. The Coalition has begun use of a universal fidelity tool, co-developed by Drs. Sarah Owens, Wendy Reinke, and Shannon Holmes, to measure and provide meaningful feedback to consumers about intervention implementation. Attached is the University Fidelity Tool that is described here and in the Products section of the report. The following summarizes fidelity information collected via our universal tool for Universal, Selected and Indicated interventions. These data were gathered starting in the fall of 2017. Many interventions are currently underway and this tool is being used to evaluate the fidelity to which they are implemented. These data will be provided at the end of the school year.



Number of Interventions Included in this summary = 9

#### 1. Information about Interventions

- **100%** of interventions selected were existing packaged curriculum, including:
  - Cool School
  - Coping Power
  - Strong Kids
  - BASIC
  - Zones of Regulation
- 66% of intervention being implemented were implemented in a small group format (with the number of students in the group ranging from 4-9).
- 33% of interventions being implemented were implemented as *universal*, school wide interventions.
- The average length of the interventions was 14 weeks.

# 2. Information about Students' Needs

- Interventions were selected to address a variety of concerns. The most common concerns were self-regulation and externalizing problems (55%) and difficulties with social skills and peer relations (44%)
- Implementers reported that the majority (88%) of students' concerns were related to fluency (i.e., students know how to perform the skill/behavior, but do not perform the skill/behavior consistently). 11% of implementers reported that students' concerns were related to skill building (i.e., students do not know how to perform the skill/behavior being targeted by the intervention).
- On average, implementers reported that they mostly agree (M = 2.4; 1 = Completely Agree, 5 = Completely Disagree) that the intervention selected matches the students area of need and the intensity of the problem (M = 2.4; 1 = Completely Agree, 5 = Completely Disagree)

# 3. Information about Intervention Selection and Monitoring

- 100% of interventions were selected using the BCSMHC Checklist.
- 55% of interventions were selected using more than one source of data (e.g., BCSMHC Checklist and educator nominations or counselor referrals).
- 100% of implementers reported that they were collecting data to determine the effectiveness intervention. Examples include:
  - BCSMHC Checklist (66%)
  - Pre and post assessments provided by the coalition (33%)
- 44% of implementers reported that they were also collecting <u>data to monitor the progress of the interventions.</u>

# Consumer Feedback

We requested feedback from our Coalition school administrators, school counselors, social workers, and school psychologists, and other school staff in efforts to refine practices and inform our work. Eighty-nine total counselors, social workers, and school psychologists, and other staff replied to the brief survey. Twenty-nine school administrators. 32



counselors, and 28 other roles replied to the survey. The average ratings across consumer satisfaction items are provided below in Table 7.

	Average Rating (higher scores are better)			
Question:	Administrators (n = 51)	Counselors (n = 61)	Other (n = 110)	All Roles (n = 223)
How important is the work the Coalition has been providing in your school this year so far?	4.06	3.69	3.75	3.81
Overall, how satisfied have you been with the work of the Coalition in your school(s)?	4.10	3.66	3.72	3.84
Note: Higher scores are better. Scale was 1 (very unimportant/ satisfied) to 5 (very important/ satisfied).				

*General Feedback*: The survey participants were also allotted the opportunity to provide feedback on what is going well and suggestions for improvement. The responses were overwhelmingly positive with regard to the checklist data and having regional coordinators available in schools to support data collection and consultation with schools on intervention planning. The few comments suggesting areas for improvement focused predominantly on tweaks with data presentation and wanting regional coordinators to provide more direct service in the buildings. A few of the comments from the survey are provided here below.

# Things Going Well:

"The monthly meetings have been good and the meeting with MUPC was excellent. I also thought being able to sit down with our Regional Coordinators to go over the data was very helpful."

"Our coordinator was an integral part of our Problem Solving Team, she created lessons for our new Mentor program with Battle HS, and she provided ongoing support and resources for me."

"Our coordinator was excellent with communication and help with resources and following up on things. I'll miss her very much."



- "I loved that our coalition partner came to all of our behavior meetings. She was also willing to meet with me (or my administrators) one-on-one if we need to brainstorm a plan for a student or talk about class or school-wide interventions. She's passed along some great ideas this year."
- "The Checklist was helpful to see trends in the data with certain students."
- "The prompt responses to any questions we had. The support in lesson planning for Zones (of Regulation)! The relationships we have established."
- "Any barriers we have I believe are on the school's side. Our coordinator is responsive and helpful. We are just spread so thin at the school that we have a hard time advancing initiatives."
- "We have been working with Tara Collier this year and she has been assigned to our building again next year. Tara is wonderful to work with and has been an asset on our student support team. I think it is great that we can continue to build on the relationship that we already had and that we do not have to start over with someone new. Building that foundation can take time and it is great to have someone we already trust and work well with helping in our school building."
- "One of the biggest benefits I, personally, see with the coalition is the resources, knowledge, and ideas staff bring to problem solving teams."
- "The surveys we received for our students were instrumental in catching some social problems our students may have. I think completing the forms and then reviewing the data was a great way for us to get support in place for our kids".



#### Suggestions for Improvement:

- "I would like for the coalition to compile the teacher and student survey to be put together for each high risk student so we can see the full picture at a glance. Then I'd like help in grouping students by issues. Many of the students already have supports in place but then I can see where something else needs to be in place. I hope this makes sense."
- "It would be good to have this be a round table discussion with all districts. More time spent in the district/buildings would be great!"
- "The limited amount of time the regional coordinators have in the district. Also, starting over with a new regional coordinator every year."
- "Asking teachers to do the checklists three times a year is a great barrier. They are super busy, and to do the check-list takes a lot of time if they do it well. I think we could increase teacher buy-in if we lessen their work on this."
- "Survey only once per semester. Shorten the survey. Figure out a much easier way to login so that it is not problematic each time. Have consistent technology support so that teachers don't get notifications that they haven't taken the survey even though they did."

#### Testimonials

In addition to requests for formal feedback, we recognize the satisfaction of our consumers, students, families, school staff, and partnerships are vital to our success. We are grateful for our continued collaboration. The following testimonials serve as examples of our continued acceptability, growing partnerships, and satisfaction among our key stakeholders. These statements were volunteered across the course of the year.

"What if you could create a system where a community could know and respond to the mental health needs of its children? That is exactly what the Boone County Schools Mental Health Coalition is doing, and doing it really well!"

> Dr. Peter Stiepleman Superintendent of Columbia Public Schools



"The Boone County Schools Mental Health Coalition has been a great resource for the Harrisburg School District. The BCSMHC helps our elementary, middle and high schools in many ways. It administers student and teacher checklists three times each school year which provides data that allows us to identify trends and guides our student interventions. BCSMHC provides a liaison that serves on Student Success Teams at all three schools where they offers solutions and strategies to help our students achieve academic and personal success. In addition our liaison has helped teachers in areas they have requested training such as classroom behavior management, anti-bullying and school culture.

The BCSMHC helps us identify and access resources that are not always easily accessible in a rural community and school. We are very pleased with the work and assistance we receive from the coalition."

# Steve Combs Superintendent of Harrisburg School District

"The Boone County Schools Mental Health Coalition has been such a welcome service in Boone County Schools. As educators we are not trained to handle complex student mental health issues but as a member of the Coalition my teachers and administrators have had trained professionals handling these situations successfully. The level of professionalism and education of the regional coordinators, director and M.U. Personnel working with and for the coalition are second to none. The Sturgeon R-V School District is very fortunate to have access to high quality mental health services through the coalition and I believe that the coalition is a solid investment in my students' futures and their successes."

#### Shawn C. Schultz **Sturgeon R-V School Superintendent**

"The Boone County Schools Mental Health Coalition has been a game-changer for the Centralia R-VI School District. For years we had struggled, as do schools nationwide, in dealing with this important, yet often neglected, area. With the generous funding that we have received from county taxpayers, we now have a systematic approach to helping our students with their mental health issues. It's not just interventions but, more importantly, prevention that leads to maximizing positive outcomes. Our counselors are better informed in their programs to serve our students through the data we receive. Finally, the collaboration between the school districts and the University of Missouri has enhanced this partnership, making our county a better and healthier home for all Boone County citizens."

#### **Darin Ford** Superintendent Centralia R-VI School



"Our Lady of Lourdes Interparish School is a private school that is part of the Boone County Mental Health Coalition. We feel very fortunate to be able to access the resources that the coalition provides. As a private school, our available resources are somewhat limited. The coalition has helped us identify students needing additional support and we have been able to provide resources to families. The coalition has had a positive impact on our school community."

#### Elaine Hassmer **Our Lady of Lourdes Interparish School**

"The Mental Health Coalition is amazing and I don't know what we would do without their support. They are an important part of our team at Southern Boone Primary!"

> **Brandy Clark** Principal Southern Boone Primary School

"I liked how the group that Jenna and Kristin did with us gave us different points of views and opinions on how to help out with a problem. I liked how we could all encourage one another to feel better and be more positive. We also were able to learn about other people's coping skills and what worked for them. I also found out that a lot of other girls are going through the same thing as me."

-7th grade student receiving intervention services



# **Coalition Activities:**

We track how Coalition regional coordinators spend their time in schools to better understand the activities occurring in schools. We also use these data to make determination about how to shift energies, as needed based on data and consumer feedback. Our regional coordinators are split between multiple schools with each serving between 6 to 10 schools total. The figure below provides an overview of what types of activities our regional coordinators are doing in our school building on a regular basis.

# Figure 10. Pie Chart of Percentage of Categories of Regional Coordinator Direct Client Contact Time.









# University of Missouri Partnership:

There is a strong and fruitful partnership between the Coalition and University of Missouri. Graduate students from School Psychology, Social Work, Counseling Psychology, and Special Education are active participants in the Coalition. Twenty-nine Graduate Student support the CORE mentorship program providing over 400 direct service hours. In addition, three school psychology doctoral students worked in the schools on a weekly basis. These graduate students provided several hundred direct services hours to youth in schools based on the Coalition data, providing group based and individualized services for youth. Two of the three students are returning students with a strong background in our work and collaboration with schools. Beginning in January 2018 we anticipate the continuation of our work with school social work students and a Stephens College master's level counseling practicum student under the supervision of our licensed professionals

In addition, we have two postdoctoral fellows who is funded to work with MU through a fellowship with the Institute of Education Sciences. Both work 20 hours per week in the Coalition schools (free to the Coalition). These activities are part of their training opportunity and both are earning her licensure hours while working in our schools. Drs. Holmes and Smith bring a host of expertise in school-based consultation and working with children and families with challenging behaviors. We appreciate their willingness to work with us.



# Additional Analysis and Resulting Products:

Our MU faculty partners are currently conducting a series of validation studies on both the student and teacher checklist with support from the recently grant funded by the U.S. Department of Education, Institute for Educational Sciences (IES). Details about the funded grant can be found in the *Products* section of the report. These analyses will look at developmental differences across the age range, confirm the factor structure of the checklist constructs, and evaluate the concurrent and predictive validity of the measures. The findings will inform future administration of the checklist (e.g., possible removal of items). A series of manuscripts will be developed and submitted for publication. All manuscripts submitted are in full partnership with the Coalition, in that the "County Coalition for School Mental Health" will be listed as an author on all publications and acknowledgement of funding support through the Boone County Children Services fund. These manuscripts will help to disseminate the innovative work of the Coalition.

To validate the Teacher and Student Checklist, participating and consenting teachers completed a brief assessment similar to the checklist that is used nationally, the Behavior and Emotional Screening System (BESS) for each student in their class with parent consent and student assent. Additionally, teachers completed a second measure that confirms whether a student identified by the BESS does actually demonstrate risk, Behavior Assessment System for Children, Third Edition (BASC-3-Teacher Report) for a select number of at risk students within their class. Additionally, with parent consent and student assent, students (grades 3-12) completed the Behavior Assessment System for Children, Third Edition (BASC-3-Self Report) on themselves. See table below for current completion rates. Data indicate all assessments completed and scored. Additional data will continue to be input and analyses will be conducted across the coming months.

# Table 8. Elementary Level BASC and BESS completion rates

	Teacher BESS	Teacher BASC	Student BASC
All Elementary Schools	1787	308	406
Table 9 Secondary Level BASC and BESS completion rates			
	Teacher BESS	Teacher BASC	Student BASC
All Secondary Schools	1524	199	257
Table 10. Total BASC and BESS completion rates			
	Teacher BESS	Teacher BASC	Student BASC
All Schools	3311	507	663



#### **Products**

- We have developed the online teacher and student checklists for the early identification system. All reports are automated and available to schools at the time that all student data are finalized (e.g., when the last student or last teacher finishes the checklist).
- We have developed an assessment system for high-risk youth in alternative school placements and tailored mentoring intervention.
- . We have developed problem solving process forms that school-based teams utilize to document the problems solving process with students in their schools. These forms have been adapted by Columbia Public Schools to use these forms universally across all schools in their district.
- We have developed automated excel files that allow school-based teams to review data and track interventions and assessments of students identified as having risk within the early identification system.
- We are currently finalizing a manual that provides a menu of options for universal, selective, and indicated intervention across the risk domains to support schools in determining appropriate and feasible interventions.
- We have developed professional development sessions on helping students with executive functioning, helping teachers with classroom behavior management, supporting schools in developing behavior support plans, working with students with severe behavior problems, and using Motivational Interviewing with families, youth, and school personnel. All available online at http://bcschoolsmh.org/for-schools/training-resources/
- We have developed dissemination brochures for parents and school personnel. These will be included within our manual and available on our website for support to school and parents
- We developed and maintain the Boone County School Mental Health Coalition website: http://bcschoolsmh.org .
- We have developed a universal fidelity measure that can be used to measure implementation of any skill-based intervention across all domains and levels (universal, selective, targeted). We began administration of this measure to supplemental evaluation of effectiveness and provide feedback to implementers or evidence-based curriculum.
  - See above for preliminary data results for our small group/tier 2 implementation
- We collaborated with Dr. Kristen Hawley, Susan Perkins (CPS), and Betsy Jones (CPS) to develop a professional development for social services agencies. The title of the workshop is: "Coordinating Youth Mental Health Care Effectively with the School System". It will be held on Friday, September 22<sup>nd</sup>, from 8-12. This 4-hour workshop provided youth mental healthcare participants with information and strategies to coordinate youth mental health care effectively with the school system. Participant feedback is summarized above.
- We have developed a model suicide prevention and intervention protocol for some participating districts to adopt . into policy, at their request. This model provides guidelines for both preventative activities, but also for completing a suicide risk assessment and appropriate actions as a result of the assessment.



# Scholarly Products

Funding:

We were **awarded funding** for a grant proposal to the Institute of Education Sciences (IES) entitled, Creating a Comprehensive Data-based Coordinated System of Care for School Districts to Promote Youth Academic Success and Social Emotional Development: A Researcher-Practitioner Partnership to fund a 2 year project and provide \$397,211 in support for development, implementation, and validation of all assessments associated with the early identification system. See the following link for full announcement: https://ies.ed.gov/funding/grantsearch/details.asp?ID=1981

# Manuscripts & Publications

The following manuscripts were accepted in peer reviewed journals in efforts to disseminate the Coalition model:

- Reinke, W.M., Thompson, A. Herman, K.C., Holmes, S., Owens, S., Cohen, D. Tanner-Jones, L., Henry, L., Green, • A., Copeland, C., & County Schools Mental Health Coalition (in press). The County Schools Mental Health Coalition: A model for community level impact. School Mental Health.
- Thompson, A. M., Reinke, W. M., Holmes, S., Danforth, L., Herman, K. C., & the County School Mental Health • Coalition. (2017). The County School Mental Health Coalition: A model for a systematic approach to supporting vouth. Children & Schools. 209-218.

# Presentations.

- We have presented the Coalition model at national and international conferences. The following are presentation that have been presented in 2017 or have been accepted for future presentation:
  - Owens, S. A., Williams, R., & Jones, B. (2017, March). A Prevention Based Model of Systemic Mental Health Care and Collaboration with Schools. Professional collaboration presented at Collaborative Conference on Evidence-Based Practices, Osage Beach, MO.
- We have accepted presentation proposals regarding Coalition model and work at the following national conferences:
  - Holmes, S. R., Owens, S., & Reinke, W. M. (2018, February). Maximizing measurement: A universal and multidimensional approach to fidelity. Paper to be presented at the annual conference of the National Association of School Psychologists, Chicago, IL.
  - Holmes, S.R., Owens, S., & Reinke, W. M. (2018, March). The universal fidelity tool: An efficient and practical approach to assessing fidelity. Paper to be presented at the 15th International Conference on Positive Behavior Support, San Diego, CA.
  - Cohen, D. R., Reinke, W. M., Thompson, A., Herman, K. C., Owens, S., & Tanner-Jones, L. A. (2018, March). School mental health service utilization in a county-wide program. Poster to be presented at the American Psychological Association Annual Convention, San Francisco, CA.





# Appendix A

County-wide Data from Fall Administration of Teacher and Student Checklist

