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INTEGRATED PSYCHOLOGICAL SERVICES IN PEDIATRIC PRIMARY CARE: A PROGRAM EVALUATION

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INTEGRATED PSYCHOLOGICAL SERVICES IN PEDIATRIC PRIMARY CARE:

A PROGRAM EVALUATION

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ABSTRACT

Many children and youth experience emotional and/or behavioral health difficulties and lack appropriate access to care. Access to care limitations are particularly relevant to rural populations such as Mississippi. Integrated care models could serve as an innovative solution to increasing access to care for children and youth. In particular, the Three World View model of integrated care asserts that attention should be given to the clinical world (i.e., provision of evidence based services), operational world (i.e., charting, scheduling, referrals, etc.), and the financial world (i.e., funding and reimbursement). The current study utilized program evaluation tools to develop and evaluate a new integrated care model with particular attention process related factors across all three worlds. One pediatric primary care clinic in rural Mississippi participated in the study, which included hiring a half-time psychology doctoral practicum student. The development phase resulted in an organized logic model showing program components and measurement plan. Additionally, a modular manual for single-session interventions in integrated care was created during this phase. Evaluation results suggested that this model was successful in many clinical, operational, and financial characteristics. The emphasis on process variables contributes not only to the literature in integrated care but could also greatly assist practices that are interested in implementing an integrated care program.

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CHAPTER I: INTRODUCTION

According to a report released in 2007, 11.3% of children and youth aged 2 to 17 years old in the U.S. met criteria for one or more emotional, behavioral, or developmental disorders. These rates are substantially higher when considering just the state of Mississippi, where 15.7% of children aged 6 to 11 years old and 12.6% aged 12 to 17 years old met criteria for one or more disorders (U.S. Department of Health and Human Services [U.S. Department of Health], 2010). Furthermore, there is recent evidence to suggest that the incidence of mental health disorders among this age group is increasing, with national rates of depression escalating from 5.9% to 8.2% in the past 5 years (Nguyen, Hellebuyck, Halp, & Fritze, 2018). Despite this high base rate, only 34.7% of children or youth who had a mental health disorder received treatment nationally (U.S. Department of Health, 2010). The availability of services is even more limited in the state of Mississippi, which ranked 49th on a measure including both prevalence of mental illness and access to care for youth according to the 2018 State of Mental Health in America report. Access to care measures included insurance quality and access, treatment access, special education resources, and ratio of mental health providers to state populations (Nguyen et al., 2018).

Part of the reason for this limitation in Mississippi could be that the population is diffuse and primarily rural (2.98 million people; 51.2% living in rural areas; Mississippi Population, 2018). This means that healthcare resources often require travel, which can increase the overall burden on the individual in terms of time and money necessary to engage in services. Additionally, approximately 22% of households in Mississippi are living in poverty (Mississippi Population, 2018), which exacerbates any barriers to access. In particular, many people in this

demographic are uninsured or have private insurance that does not cover mental health treatment (i.e., 7.7% of youth in the United States; Nguyen et al., 2018). Even if they do have adequate insurance, time and copays for treatment with a specialist can be burdensome, particularly considering the limited financial resources available in this impoverished group.

Although more pronounced in lower socioeconomic groups, accessibility is problematic for the entire population in the state of Mississippi. For example, in a study that included all 50 states and Washington D.C., Mississippi ranked 51st in access to mental health care, which was defined as adults and youth who did not receive needed treatment, adults who were uninsured, adults who were unable to afford physician visits, youth with private insurance that did not cover mental health, and overall mental health provider availability (Nguyen et al., 2018). Specifically, 70% of youth with Major Depressive Episodes did not receive access to any treatment in Mississippi and only 11.3% of youth with severe depression received consistent care (defined as 7 or more visits per year). Additionally, 18.4% of youth in Mississippi had private insurance that did not cover mental health services, which greatly exceeds the national average of 7.7% (Nguyen et al., 2018). Another limiting factor in access to care is the scarcity of mental health providers in Mississippi, where there is only one provider for every 820 people who are in likely need of treatment. In this study, the broad term "providers" included psychiatrists, psychologists, social workers, counselors, and nurses with specialization in mental health (Nguyen et al., 2018). To contextualize this number for psychological practice in particular, the 2017 annual report from the Mississippi board of psychologists indicated that there were 408 PhD level psychologists with active licenses (i.e., one PhD-level clinician for every 7,300 people in the state). It should also be noted that the report did not include how many of those with licenses

were currently seeing patients, or how many hold a license in this state but live and work elsewhere (which is known to be the case for a substantial percentage of licenses issued).

These studies demonstrate that many children and youth experience mental health problems and have limited access to treatment from specialized mental health practitioners. In lower socioeconomic regions and rural areas like Mississippi, mental health access is particularly limited. Furthermore, individuals in need of mental health services are often identified through primary care providers or the education system (Murphey, Vaghn, & Barry, 2013). An older study found that general pediatricians accurately identified only 17% of patients with emotional or behavioral health problems (Costello and Dulcan, 1988). Mental health services in these non-specialist settings have often been limited to providing referrals to specialist providers (which are few, as noted above) or attempting to manage psychotropic medications (which may be beyond the scope of training and/or applied clinical interests of many general medical practitioners). Even when children are identified and receive appropriate referrals, results from a study that included approximately 21,000 children indicated that only 40% of the children identified in primary care practices in the U.S. reported following through with referrals (Rushton, Bruckman, & Kelleher, 2010).

Integrated Care

Historically, treatment for medical and behavioral disorders has been conducted completely separately from physical health, and this fragmentation has potentially contributed to accessibility problems. Wagner and colleagues (1996), however, designed a formal model for integrated, collaborative care, which combined emotional and behavioral supports with medical treatment for chronic pain. The process of developing this model involved review and analysis of randomized controlled trials (RCTs) and other empirical evaluations of medical programs and

clinics designed to treat and/or manage chronic pain. In general, these studies implemented complex care programs in specialty clinics for a variety of chronic care conditions (i.e. hypertension, diabetes, etc.), and the programs demonstrated significant improvement in terms of treatment adherence, high rates of symptom control (i.e. blood pressure or blood sugar control), and reduction in long term complications associated with chronic illness. The authors found that successful chronic care programs or clinics contained five common elements: evidence-based planned care, practice redesign, patient education, expert collaboration, and informative system for patients.

The first element, evidence-based planned care, focuses on utilizing explicit protocols or plans that include detailed instructions that enable all collaborative providers to understand what tasks will be done for patients, how often, and who does them. The authors present this planned care approach as the overarching feature of successful programs with practice redesign, patient education, expert collaboration, and information communication all falling within the umbrella of planned care. The authors note that working in this structured manner is uncommon for many busy chronic pain management medical practices, but nonetheless extremely useful in reducing variation between patients and practitioners to ensure that all patients receive the same quality care. Adapting to this structure often necessitates broader practice redesign, which was the second common component of effective integrated chronic care programs. For many practices, this redesign includes implementing a practice team that focuses on division of tasks, acting as care managers for patients (i.e., assisting with appointments and follow ups), and coordinating with other health care providers when needed. Implementing this practice team successfully also generally requires frequent and routine team meetings (Wagner, Austin, & Von Korff, 1996).

Regarding the patient education component, the authors reviewed over 400 empirical articles regarding self-management and support in chronic care treatments, and the evidence strongly supported patient involvement as a predictor of better treatment outcomes. In their review, they noted that patient education included many sub-components including working collaboratively, patient education and support, and routine follow-ups. For example, successful programs generally emphasized patients and providers working collaboratively to choose and define the target behaviors, set reasonable goals, and create a personalized plan for change. Factors such as self-efficacy and patient readiness to change also impacted the long-term success of the treatment. The authors indicated that programs with the best treatment outcomes also included patient education and support activities that focused on behavior change support, exercise planning, and emotional support. Finally, the evidence also supported the importance of frequent and routine follow-ups initiated by the physician (Wagner et al., 1996).

The next common element of successful programs focused on expert knowledge of health problems and collaborative treatment. Traditional models of care often rely on referrals to specialty clinics, which can make care fragmented and often more difficult on patients. Therefore, the authors recommended a new model in which general primary care practitioners work with specialized health care providers in the same office to manage patient care. This expert system can help with direct patient care as well as providing physician education and training to distribute knowledge more effectively.

The final component of successful programs focused on implementing an informative system for patients. To accomplish this, providers worked to ensure that the relevant information about a patient's given health condition was available and explained in a way that was understandable and pragmatic. Successful programs were also proactive in creating a care plan

with patients and encouraging patients to follow the plan. Incorporating all of the elements described above, the overall success of the collaborative care model was posited to rely on the creation of a care team that includes physicians, internal specialists, and non-physician team members to provide all health services needed in one location as well as coordinate follow ups and care management tasks (Wagner et al., 1996).

The development of the collaborative care model sparked other researchers to design and implement integrated care models in areas other than chronic pain treatment (reviewed below). Heath and colleagues (2013) recently proposed a theoretical framework that could provide a standard language for describing collaborative or integrated care settings related to behavioral health in primary care, which may help contextualize review of individual studies that follows. This proposed system organized integrated care systems into three main categories (Coordinated Care, Co-located Care, and Integrated Care) with two levels per category. This framework presented collaborative care models on a spectrum of less integrated to more integrated, and proposed that utilizing this common language would allow healthcare facilities to better evaluate their integrated programs. For example, a common vernacular would allow one facility to compare their program's structure with standardized benchmarks and determine what changes could be made to enhance further integration (Heath, Wise Romero, & Reynolds, 2013).

Main categories of the framework were organized based on the presence of certain key elements that build upon the presence of the previous element (i.e. are hierarchically arranged). These elements focused on communication between Primary Care Providers (PCP) and Behavioral Health Providers (BHP), physical proximity of office spaces and practitioners, and system change to facilitate joint primary care and behavioral health practice. The main categories based on these elements were Coordinated Care, Co-located Care, and Integrated Care, each of

which was broken down into two "levels" indicating the degree of integration within that category (Heath et al., 2013). In order to move to higher categories of integration, a practice must comport with the main practices of the preceding categories (e.g., communication must be present before a practice could be considered co-located, regardless of whether or not PCPs and BHPs share office space).

The first main category of integration, Coordinated Care, focused on increased communication between providers while still maintaining completely separate facilities and systems. Within this category, the most basic level of integration was referred to as "minimal collaboration," defined as PCPs and BHPs communicating only sporadically and about very specific issues. For example, this would include a practice in which the PCP and BHP communicate infrequently one mutual patient's depressive symptoms. In the next level of Coordinated Care, "basic collaboration at a distance," PCPs and BHPs view each other as helpful resources and communicate more frequently. Extending the example of the depressed patient (above), this level of care might include a PCP request for psychiatric evaluations and/or treatment notes to inform biomedical interventions for depression, which may in turn facilitate periodic, bidirectional communication periodically about that mutual patient. It is important to note, however, that communication at this level is still generally restricted to focal issues about shared patients.

The next main category, Co-located Care, emphasizes physical proximity of providers as a means to enhance communication between PCP and BHP. The first level of Co-located Care, "basic collaboration on site," includes PCPs and BHPs sharing a facility while maintaining separate systems and practice space. Referrals are still utilized to send patients to BHPs at this level of integration. For example, this level could include larger facilities that offer a variety of

services; however, face-to-face communication is still limited and systems are still distinct. The second level in this category, "close collaboration with some system integration," refers to practices in which PCPs and BHPs overlap in their implementation of clinical services and record keeping. For example, a practice in this level might have a BHP embedded at a primary care office, and thus be able to efficiently arrange a consult for the aforementioned depressed patient at the time of his/her medical office visit. Additionally, systems in this level are somewhat integrated, particularly in terms of utilizing a single system for scheduling meetings with PCPs and BHPs (as well as access to shared records when relevant). This differs from more closely integrated practices, however, in that collaboration and consultation is still relatively restricted to complex patients (i.e., not a matter of course for any and all behavioral health issues encountered by the broad patient population; Heath et al., 2013).

The final main category, Integrated Care, emphasizes overall practice change and much closer collaboration than the previous two categories. In the first level, "close collaboration approaching integration level," PCPs and BHPs begin seeking practice change to enhance teamwork for a broader range of patients. This generally includes more frequent, personal communication between providers (potentially about a range of general issues), but lacks a fully integrated medical record system. For example, PCPs and BHPs at this level would have routine team meetings focused on enhancing patient care and seeking solutions to system integration problems. In line with the example of a depressed patient above, these meetings might include discussion of a specific case, which could then facilitate broader exchanges about how to best treat depression more generally from a team-based perspective. The highest level of Integrated Care, "full collaboration in a transformed practice," emphasizes systematic practice change. The guiding principle of such a practice is to provide comprehensive services for the "whole" person

(i.e. physical and behavioral/emotional) to all patients, not just those with specific dysfunctions or symptoms of mental disorders. For example, a practice at this level of integration utilizes a team-based approach for all patients that considers both medical and psychological health (rather than simply responding to specific pathological symptoms in either or both domains). Continuing the example of depression, this might include routine screening of all patients for depressive symptoms and systematically tiered consultation, prevention, and/or intervention with individual patients as relevant. Practices that prioritize integration work towards this level as a goal; however, it likely takes substantial time, resources, and learning to resolve system issues en route to becoming a fully transformed practice. This may become more relevant in reviewing RCTs for pediatric integrated primary care (below), studies of which are organized based on the main categories of integration (Coordinated, Co-located, and Integrated Care programs; Heath et al., 2013).

Evidence for success

Evidence for Coordinated Care programs.

Wissow and colleagues (2008) conducted a cluster-randomized trial to investigate the impact of training pediatric primary care providers in communication skills related to mental health. Of the 418 patients who participated, 248 saw providers who completed the training program. Participating sites included 7 practices in rural areas and 6 practices in urban areas. Physicians participated in 3 training sessions 3 weeks apart, and each training session featured a teaching component, small group discussion, and clinical practice of the component skill. This training included communication skills intended to elicit mental health concerns from parents, work collaboratively with parents to find appropriate treatment, and increase positive expectations of treatment success. Training methods to achieve these goals were drawn from a

variety of evidence-based methods including motivational enhancement, solution focused cognitive therapy, and patient centered care.

Children's emotional and behavioral symptoms and impairment were assessed using the Strengths and Difficulties Questionnaire parent report (SDQ). Additionally, parental mental health symptoms were assessed using the General Health Questionnaire (GHQ). Researchers also used program evaluation tools to investigate parent perception of provider competency regarding behavioral and emotional care (which was done without patient knowledge of the training status of their provider). Results indicated that emotional/behavioral symptoms as measured by the SDQ tended to improve over the course of treatment regardless of provider training status for white children. For ethnic minority groups, however, children's symptoms tended to become more severe over time with an untrained provider but reduced significantly with a trained provider. Parental mental health symptoms according to the GHQ also decreased significantly more when seeing a trained provider. Furthermore, the improvement in parent symptoms varied by child symptom status, with a greater reduction notable in parents of children with symptoms of mental duress. The conclusions of the study indicate that communication training for providers can have an impact on youths' emotional/behavioral health symptoms, but this impact may be moderated by patient ethnicity (Wissow et al., 2008).

Another study compared the effectiveness of brief parent training compared to usual care in a real-world pediatric primary care setting (Kjobli & Ogden, 2012). Two hundred and sixteen children ages 3 to 12 years old who were exhibiting behavior problems participated in the study. These participants were referred to the study based on pediatrician clinical judgment, and were then randomized to either intervention or control conditions. The article did not include description of where the intervention was provided (i.e., medical clinic vs. specialty mental

health clinic vs. co-located office); therefore, this study was conservatively categorized as Coordinated Care. For the treatment group, interventionists were recruited from primary care practices, schools, daycares, and special education programs to provide treatment. These interventionists attended a 9-day training on a manualized treatment protocol for parent training (Brief Parent Training; BPT). The protocol for BPT entailed a single 3 to 5 hour session delivered to an individual family. During this session, parents are taught positive parenting skills based on social interaction learning theory. The control group included children receiving usual care from their pediatricians and/or other standard resources already available in that setting. Across all participants, children's behavioral problems were assessed using parent and teacher reports. Parent reports included the Eyberg Child Behavior Inventory (ECBI), Home and Community Social Behavior Scales (HCSBS), and the Child Behavior Checklist (CBCL). Teacher report of behavioral symptoms was assessed using the School Social Behavior Scales (SSBS) and the Teacher Report Form (TRF). Additionally, the Parenting Practices Inventory (PPI) was used to assess parenting practices. According to the outcome data, all parent and child reports of externalizing and internalizing problems demonstrated brief parent training to be successful, with moderate effect sizes for reducing child behavioral symptoms and improving parenting practices relative to the control group (Kjobli & Ogden, 2012).

Another coordinated program sought to investigate a distance based treatment that provided a self-help booklet and support via phone calls for behavior problems in young children (Reid et al., 2013). The sample included 178 parents of children ages 2 to 5 years old with behavior problems who were recruited at a family practitioner's (FP) clinic and randomized to either receive this behavioral intervention or be in a control group. The intervention group received a self-directed treatment booklet immediately after their medical appointments, and the

control group received the same booklet after an 8-month delay. The intervention booklet contained 6 modules, which were intended to be read and administered weekly. The content of the intervention focused on parents forming developmentally appropriate expectations of their children's behaviors, parental modeling of appropriate behavior, behavioral monitoring/tracking, provision of rewards, defining and communicating clear expectations to children, and decreasing negative child behaviors (e.g., time out; active ignoring). Parents in the treatment group also received phone calls at week 0, week 2, and week 5 to provide support, motivation, and problem-solving help related to treatment. Outcome measures including the Eyberg Child Behavior Inventory (ECBI) and the Child Behavior Checklist (CBCL), both of which were assessed at 7 weeks, 3 months, and 6 months. After the 6-month follow up, parents in the control group were mailed the treatment booklet (thus precluding their participation in the 12-month follow up assessment). According to ECBI and CBCL, there was no significant within-group improvement at post-treatment for either group. There was, however, a significant interaction of group with time, with parents in the treatment group reporting differential symptom improvement in comparison to families in the control group (albeit not significant improvements in terms of main effects; Reid et al., 2013).

Silverstein and colleagues (2015) conducted a parallel-group comparative effectiveness trial by randomizing children with Attention-Deficit/Hyperactivity Disorder (ADHD) to either basic or enhanced collaborative care. The sample included 156 children ages 6 to 12 years old who had no prior diagnosis of ADHD, Autism, or Bipolar Disorder. Children who had been or were currently being treated by a mental health practitioner were excluded. The sample was predominately male and diverse in terms of ethnicity (i.e., 60% African American and 27% Latinx). The two participating sites included one nested in an academic medical center and one

in a community health center, and randomization was conducted independently for the two sites (i.e., each site enacted both forms of collaboration). All practitioners assessing outcome data were blind to condition.

Participants in both basic and enhanced collaborative care groups had a care manager (CM) available; however enhanced CMs had different roles than basic CMs. In general, care managers were individuals with Bachelors or Master's degrees who had no formal mental health training prior to the study. CMs in the control group, called Basic Care Managers (BCM), received brief training in interviewing skills related to obtaining medical history information, description of symptoms, and family history. These BCMs had three main tasks: administer clinical scales to parents and teachers, conduct a clinical interview, and serve as the point of contact between the patient and the care team (which consisted of a child psychiatrist, a developmental-behavioral pediatrician, and a primary care physician). In the enhanced collaborative care group, enhanced care managers (ECM) received an additional 5-day training related to parental mental health factors, patient/family ambivalence towards treatment, and oppositional behaviors. This training also included motivational interviewing techniques and certification in Triple P's Primary Care training module (Silverstein et al., 2015).

In terms of measurement, ADHD and oppositional symptoms were assessed using the Swanson, Nolan, and Pelham (SNAP-IV) parent -report measure, and the Social Skills Rating System (SSRS) was utilized to estimate social skill competencies for children. Additionally, measures of caregiver factors such as depression symptoms, health literacy, and adult ADHD symptoms were administered. Results indicated that enhanced care managers met with parents on average 1.58 times, and approximately 47% of parents engaged in at least one aspect of the parenting program. At baseline, a little over half of the sample reported experiencing symptoms

of inattention (54%) and hyperactivity (68%) consistent with the highest 5% of nationally normed scores. No significant differences in any outcome measures were found at 6- or 12-month follow-up when conducting between-group comparisons using the full sample. When looking at sub-group analyses, however, children with ADHD-consistent profiles at baseline who received enhanced care demonstrated significantly greater improvements of inattention, hyperactivity, oppositional behaviors, and social skills at a 12-month follow-up compared to children in the basic care group. This difference was not significant at the prior 6-month follow-up; however, the narrowly defined inclusion criteria (i.e. ADHD symptoms) further inhibited the generalizability of findings. Including patients with reported ADHD symptoms rather than confirmed diagnoses of ADHD is another limitation of this study that could contribute to the limited success of treatment (Silverstein et al., 2015). Despite generally null results in a narrowly defined population, however, the descriptions of provider training and communication processes were valuable in informing the current study.

Evidence for Co-located Care programs.

When addressing behavioral/emotional health in younger children, treatment protocols often focus on working with their parents to implement behavioral strategies at home. One parenting program in particular was designed by Sanders (1999) to prevent young children from developing behavioral, emotional, or developmental disorders. This program, called Triple P (Positive Parenting Program), is a multi-leveled intervention with 5 tiers of treatment based on severity of need. One iteration of Triple P is designed for implementation in primary care settings and includes 3 to 4 sessions for parents who have children exhibiting mild and specific behavior problems (Primary Care Triple P; PCTP). This program uses behavioral and social learning principles to educate parents regarding age appropriate development, teach behavior

management skills, and encourage nurturing and positive parenting skills. Sanders, Markie-Dads, Tully, and Bor (2000) conducted an RCT that examined 3 of the 5 Triple P Parenting Program levels and indicated successful outcomes (although this particular trial did not include the primary care level of the program).

To investigate the PCTP program empirically, Turner and Sanders (2006) utilized a randomized repeated measures design in which families were randomly assigned to PCTP or a waitlist control condition. Participants included 30 families with children ages 2 to 6 years old who requested help regarding behavior problems or developmental delays at any of three community children's health clinics in Australia. Treatment was administered in the primary care setting by nurses who attended a training program and received certification to implement the Triple P program. The PCTP used in this experiment consisted of either 3 or 4, 30-minute family consultations intended for children exhibiting sub-clinical behavior problems. Treatment primarily focused on educating parents regarding realistic expectations and teaching selective skills to contend with negative behavior appropriate to the situation. Relevant skills included planned/active ignoring, praise, effective instructions, time outs, establishing rules and consequences, and/or modeling desired behavior. Additionally, parents in the PCTP group were provided a booklet about positive parenting strategies and 26 handouts with tips for common behavioral or developmental problems. Outcome measures included the Parent Daily Report (PDR), the Eyberg Child Behavior Checklist (ECBC), and the Home and Community Problem Checklist (HCPC) Changes in the target behavior as measured by the PDR demonstrated statistically and clinically significant improvement on the overall mean of problem behaviors and individualized target behaviors. The PDR was also utilized to determine clinical improvement, with no significant differences between groups at baseline (intervention 62.5% and wait-list

71.4%). Significantly fewer children in the treatment group were in the clinical range for behavior problems at post-assessment compared to wait-list control (7.7% and 61.5% respectively). Additionally, parents reported significantly fewer behavior problems at home according to the HCPC, but not the ECBC.

In a more recent study, Spijkers and colleagues (2013) conducted a randomized controlled trial to investigate the effectiveness of the PCTP parenting program. Families were randomized to participate in the PCTP program (n=47) or receive usual care (n=46). Nurses certified in PCTP delivered treatment in the primary care facility and followed the same procedures outlined above (Turner & Sanders 2006). Outcome measures utilized in this study included the Strengths and Difficulties Questionnaire (SDQ) and Eyberg Child Behavior Checklist (ECBC). Secondary outcome measures included self-report measures of parenting behavior and stress (i.e., Parenting Scale (PS); Problem Setting and Behavior Checklist (PSBC); Parenting Stress Index (PSI); and the Depression, Anxiety, and Stress Scale (DASS)). Results of this study indicated no statistically significant differences between the PCTP treatment group and care as usual. This finding contrasts other studies that have demonstrated the effectiveness of the Triple P protocols, although much less is known about implementation in primary care settings (Spijkers, Jansen, & Reijneveld; 2013).

Other short forms of intervention amenable to delivery in a primary care office have also been developed and examined. Clarke and colleagues (2005), for example, conducted a Randomized Effectiveness Trial of brief CBT for adolescents who were already taking antidepressants. The study included 152 adolescents ages 12 to 18 years old that met criteria for current Major Depression Episode. Participants were randomized to receive either intervention, which added brief individual CBT to patients who had previously been prescribed a SSRI, or

treatment as usual (TAU), which included participants who had been prescribed a SSRI prior to enrolling in the present study. Individual CBT was conducted in the primary care setting by Master's-level psychologists who received 20 hours of training prior to administering treatment and weekly supervision. The CBT intervention program included the following components: 5 to 9 therapy sessions lasting 60 minutes each, ongoing collaboration between therapist and PCP, and brief phone consultations between these providers during the yearlong follow up period. The initial session focused on psychoeducation and setting treatment goals, as well as engaging participants to collaboratively to decide between two CBT skills to cover in the next subsequent session (choices included behavioral activation or cognitive restructuring). Treatment focused on the selected skill for 4 sessions, and then evaluated the need for completing the other module. Both tracks of the CBT treatment also included a focus on medication adherence to maximize SSRI compliance. Youth in the intervention condition were also provided workbooks containing homework and practice assignments. Therapists offered monthly parent meetings to provide brief psychoeducation regarding general skills. Treatment as usual (TAU) continued to provide prescriptions for SSRI and medication management. This group also allowed patients to seek out any non-study treatments or medications provided outside of the intervention practice (consistent with typical patients' autonomy to choose what services appear interesting or helpful).

Assessment interviews were conducted over the phone at baseline and 6, 12, 26, and 52 weeks post-randomization. The youth assessment battery included the mood module of a structured clinical interview (Schedule for Affective Disorders and Schizophrenia for School Age Children Present and Lifetime version; K-SADS-PL), self-report measures of depression, behavioral symptoms, and adjustment (Center for Epidemiological Studies- Depression Scale (CES-D); Youth Self Report (YSR); and Children's Global Adjustment Scale (CGAS)), and a

short general health status interview (Short Form-12; SF-12). Parents completed a rating scale on internalizing and externalizing symptoms (Child Behavior Checklist; CBCL). Results indicated that youth in the intervention group attended 5.3 therapy sessions on average. Approximately two thirds of participants chose to begin with behavioral activation (62.9%). Regarding participants who were classified as moderately depressed according to CES-D, significantly more of the participants who received CBT moved into the non-disordered category by 52 week follow up than in the control group (75% compared to 56%). This trend, however, was not significant for participants whose symptoms were the most severely among the sample. Notably, participants in the CBT group also demonstrated significantly fewer outpatient visits (physical and mental) and fewer days' supply of medication than the treatment as usual group, which could indicate that integrated skills based approaches have the potential to reduce overall long-term healthcare costs. No other outcome measures were significantly different between groups. Given that the differences were not visible until 6 or 12 month follow up, the authors concluded that CBT and medication combined was not better than just taking medication alone for treating acute depression, and suggested that this limited impact might be due to the brevity of CBT treatment (averaged 5 sessions; Clarke et al., 2005). Despite delayed effects, this study demonstrated that integrated care models might be differentially effective depending on severity of disorder (i.e. significant effect for moderately depressed individuals but not for severely depressed). Additionally, this brief integration of CBT skills did demonstrate reduction in outpatient visits and days supply of medication, which could support the impact of integrated care models on reducing overall health care costs.

Richardson and colleagues (2014) conducted a randomized clinical trial evaluating the Reaching Out to Adolescents in Distress (ROAD) intervention for treating adolescents with

depression in the primary care setting. Participants included 101 adolescents from 13 to 17 years old who were randomized to receive the ROAD intervention or treatment as usual (TAU). Patients who reported significant symptoms of depression on a brief screener (Patient Health Questionnaire; PHQ-9) were contacted to complete a structured clinical interview over the phone (Schedule for Affective Disorders and Schizophrenia for School Age Children; K-SADS). Adolescents receiving outside services (psychotherapy or medication management) were allowed to participate if they still exhibited symptoms. Nine pediatric primary care and family medical clinics in a large urban area participated in the study. Initial assessment and treatment sessions were conducted by Master's-level clinicians (Depression Care Managers), who received two days of training prior to treatment implementation. The ROAD intervention included an initial psychoeducation session with the adolescent and parent that entailed education regarding symptoms of depression and discussion of treatment options (brief CBT, medication, or both). Subsequent treatment sessions followed the two-module-choice protocol described above (Clarke et al., 2005). Enhanced Usual Care (EUC) included sending parents and primary care physicians a summary of depression assessment and recommendations. These patients could then self-refer for treatment through a behavioral health phone line if desired.

In terms of measurement, treatment outcomes were assessed at baseline, six months, and 12-months post-treatment by research assistants blind to condition. Primary outcome was measured by a modified version of a clinician rating scale of childhood depression (Child Depression Rating Scale Revised; CDRS-R). Secondary outcomes included a measure of functional improvement (Columbia Impairment Scale; CIS) and self-reported improvement of depressive symptoms (PHQ-9). Results from the primary outcome measure indicated significantly greater improvement in depressive symptoms for youth in the treatment group at 6-

and 12-month follow-up. Regarding secondary analyses, youth in the intervention program were more likely to be in depression remission at 12 months (50.4%) compared to EUC (20.7%). Additionally, youth participating in the ROAD intervention attended an average of 14 face-to-face sessions and received 7 phone calls. Over half of the participants in the intervention group selected medication and CBT (58%), with CBT only being the next most preferred (38%). Collectively, this suggests that parents could prefer to have behavioral treatment in some capacity when it is available and convenient (as is the case when integrated into their pediatric clinics). A later economic evaluation of this trial also supported ROAD as a cost-effective treatment model for adolescents with depression as measured by quality-adjusted life years (QALYs) and overall healthcare costs (Wright et al., 2016).

Kolko and colleagues (2010) conducted a RCT evaluating a Protocol for On-site Nurse-administered Intervention (PONI) compared to EUC in the treatment of externalizing behavior problems. One-hundred-sixty-three children ages 6 to 11 years old were recruited from primary care facilities in urban Pittsburgh, and then randomized to receive PONI or EUC. Two nurses were recruited and trained as clinicians during four months of hands-on training. The nurses received routine supervision from Master's-level clinicians and supplemental consultation with a psychiatrist when needed. Each nurse worked with three primary care practices to provide treatment typically consisting of 6, 1.5-hour skills-training sessions and 2 to 4 sessions as needed for problem solving and maintenance. The authors organized skills into 7 modules that included self-management CBT skills, ADHD medication management, parent management training (PMT), developmental expectations, psychoeducation and skills training (PAST) for families, school consultation, and case management. The protocol always taught PMT, CBT, and PAST skills first, and then other skills could be modular depending upon individual presentation. EUC

included assisting in referring the patient to a specialty provider by calling the provider to ensure a given family's appropriateness for referral.

Two Bachelor's-level research assistants blind to condition administered assessment batteries including interviews and self-report outcome measures. The Pediatric Symptoms Checklist (PSC-17) was used to initially assess externalizing behavior problems and determine eligibility for inclusion in the study. Once enrolled, assessment batteries were administered at baseline, post-treatment, and follow-ups at 6 and 12 months. These batteries included a semi-structured clinical interview (K-SADS) and self-report measures of behavioral problems (PSC-17 and SDQ), emotional distress (Scale for Anxiety and Related Emotional Disorders (SCARED); and Mood and Feeling Questionnaire (MFQ)), impairment (CIS), and health related behaviors (Child Health and Illness Profile; CHIP). The Individualized Goal Achievement Rating form (IGAR) was also utilized to help parents set specific goals and measurable targets for treatment. Additionally, pediatricians were asked to rate their opinions on service delivery. At post-treatment, results of the IGAR severity scale demonstrated that PONI had modest but significantly better outcomes than EUC. This group also exhibited superior outcomes for improvement in overall health-related behaviors as measured by the CHIP. For all other measures, there was significant improvement across time regardless of treatment group. Similarly, both groups demonstrated significant improvements at one-year follow-up compared to baseline, with PONI superior to EUC only in improvements in health-related behaviors (Kolko, Campo, Kelleher, & Cheng, 2010).

Following the initial success noted in the PONI trial, Kolko and colleagues (2012) conducted a two-year preliminary clinical trial of the Doctor Office Collaborative Care (DOCC) model compared to EUC in treating behavior problems for children. Participants included 78

children between the ages of 5 and 12 years old who were randomized to receive DOCC or EUC on a 2:1 ratio. Treatment was conducted in Pittsburgh across 4 pediatric primary care clinics with 29 pediatricians participating. Three Master's-level staff members were trained for four months to administer the two treatment protocols as care managers (CMs). These CMs had different backgrounds including social work, counseling, and nursing. Each CM was available 2 days a week at 2 different primary care sites. Those providing services as part of the DOCC group included on-site sessions, with each individual being eligible to receive up to 12 hours of services over a 6-month period of time. Treatment modules were adapted from the treatment manual *Alternatives for Families: A Cognitive Behavior Therapy*, and focused on behavioral psychoeducation, parent training, and emotional skills training for the child. The CM provided these treatment sessions along with care management and school consultations when necessary. Participants in the EUC group received psychoeducation, recommendations for specific treatments, and outside referrals to specialist services.

Two Bachelor's-level research assistants (RAs) blind to condition administered clinical interviews and rating scales (PSC-17, CGI, and Vanderbilt parent rating scale). Results indicated that participants in the DOCC group exhibited greater reductions in oppositional behavior, inattention, hyperactivity, and functional impairment (all measured using the Vanderbilt Scales). Alternatively, there were no significant differences between groups in symptoms of anxiety and depression. Participants in the DOCC treatment group were also more likely to be rated as improved or significantly improved (66%) on the CGI compared with EUC (8%). Finally, it was also noted that both physicians and parents indicated preferring the DOCC model with services integrated into pediatric primary care as opposed to EUC, which referred to an off-site specialist (Kolko, Campo, Kilbourne, & Kelleher, 2012).

As a follow up, Kolko and colleagues (2014) conducted a Cluster Randomized Trial of the DOCC program described above (Kolko et al., 2012). In this trial, 321 patients were randomly assigned to receive DOCC (n = 160) or EUC (n = 161). Eight pediatric facilities participated in this trial, including the four from the preliminary trial above. The EUC group implemented identical procedures to those in the preliminary trial. A few changes, however, were made to DOCC treatment modules, particularly in terms of including CBT skills related to anxiety when appropriate. Other aspects of the study followed the same procedure indicated previously (Kolko et al., 2012). Results indicated that patients in the DOCC model used significantly more clinical services, which could have been due to better access to care in the DOCC group. As in the preliminary trial, parents and children in both groups reported significant improvement in symptoms over time. Participants in the DOCC group, however, demonstrated significantly greater improvements in behavior problems, hyperactivity, and internalizing problems as measured by self-report measures. Utilizing the same sample, Yu and colleagues (2017) later investigated the cost effectiveness of the DOCC model compared to EUC in this trial. Results of this study indicated that the overall costs were almost double for the DOCC model, where almost every patient received mental health services (compared to less than half of patients in the EUC group). To account for this disparity in service utilization, the authors also compared average cost per patient who received treatment, which indicated that the capitated rate for the DOCC group was slightly *less* than EUC ($520 compared to $595 respectively; Yu, Kolko, & Torres, 2017).

Evidence for Integrated Care programs

Asarnow and colleagues (2005) conducted an RCT over 4 years investigating quality improvement of a pediatric primary care facility to treat adolescents with depression. Following

a positive screen on self-report measures of depression (i.e., 12 month Composite International Diagnostic Interview (CIDI-12) and Center for Epidemiological Studies-Depression (CES-D)), 418 patients were randomly assigned to a quality improvement condition or usual care. Broadly speaking, the quality improvement condition utilized a team-based system of on-site experts to assist in implementation of intervention. On-site treatment was provided by care managers who were Master's-level psychotherapists with degrees in mental health or nursing. Additionally, CMs were provided a 1-day training session on Cognitive Behavior Therapy (CBT) treatment prior to being on-site at clinics where they were available to support Primary Care Physicians (PCPs) with psychological evaluation, treatment, and education. Patients in the quality improvement condition were offered a free visit with a CM that included evaluation of distress, psychoeducation, and collaborative treatment planning. To the extent problems were noted, treatment options included CBT, medication, combined therapy and medication, external referral, and/or CM follow-up. If therapy was selected, CMs implemented manualized CBT that included 14 sessions to introduce treatment, teach skills (e.g., behavioral activation, social skills, cognitive restructuring, and problem-solving), and discuss maintenance/relapse prevention. Additionally, CMs were responsible for follow-ups with patients in which they integrated and prompted CBT skills. Physicians administering usual care were provided with educational materials regarding depression evaluation and treatment, but otherwise conducted routine procedures. Assessments were conducted at baseline and 6-month follow-up by interviewers blind to condition. These assessment batteries included measures of depression (CIDI-12 and CES-D) and quality of life related to mental health (Mental Health Summary Score (MCS-12) and Mental Health Inventory 5 (MHI5)). Results demonstrated significantly fewer depressive

symptoms and greater quality of life for patients in the quality improvement condition compared with usual care.

Hiscock and colleagues (2008) conducted a cluster randomized controlled trial investigating a universal parenting program for externalizing and internalizing behavior problems. After completing baseline questions, 733 mothers of 6- to 7-month old infants were randomized to receive the parenting intervention program or usual care. The average maternal age was approximately 33 for both groups. Treatment sessions were conducted at maternal health and child healthcare centers by nurses who received 5.5 hours of prior training from a pediatrician and child psychologist. This universal parenting program consisted of three treatment sessions that targeted three general parenting problems, including unreasonable parental expectations, harsh parenting, and lack of nurturing parenting. Treatment sessions were implemented at the 8-month, 12-month, and 15-month well visit appointments. Intervention at the 8-month visit consisted of nurses distributing handouts discussing normal child behavior and development in order to aid parents in having realistic expectations. At both the 12- and 15-month checkups, parents in the intervention group attended a two-hour group session. The 12-month group session focused on mothers developing a sensitive relationship with their child, as well as planning ahead for problem behaviors. The 15-month group session taught behavior management skills, including planned/active ignoring, logical choices, and quiet times. Patients in the usual care group received the routine well visits at approximately the same time points, but no additional psychological education or services. All participating mothers completed self-report measures of child behavior problems (CBCL), parenting style (Parent Behavior Checklist; PBC), and maternal mental health (DASS-21) at 7, 12, 18, and 24-months. Results of the study demonstrated differentially less harsh parenting behaviors and unreasonable expectations at 24

months for parents in the intervention (effect size -0.22; $p < 0.01$ for both comparisons). No other significant differences were noted between treatment and control groups. Although the results did not yield differences in child behavior problems at 24 months, this study supports the implementation of a brief parenting program for decreasing two etiological risk factors related to later development of these problems (i.e., harsh parenting and unreasonable parental expectations).

Weersing and colleagues (2008) conducted a pre-post comparison pilot study evaluating brief integrated treatments for anxiety and depression in children and youth, which facilitated a larger RCT (reviewed below). Participants in the pilot study included 54 patients between the ages 7 and 17 years old across two large, rural pediatric primary care facilities in Pennsylvania. Prior to the study, each facility had a mental health practitioner working in-house, one of which was a social worker and the other a nurse practitioner. Both clinicians attended a two-day training session led by a clinical psychologist that included session-by-session review of Integrated Brief Behavioral Therapy for anxiety and depression (IBBT). This protocol entails 8 treatment sessions designed to teach behavioral activation and exposure, as well as to provide time to practice these skills with the assistance of a trained clinician. Sessions included 30 minutes of treatment with the youth and a 15-minute check-in with the parent or caregiver. Session content included psychoeducation, relaxation training, problem solving skills, reducing avoidance and increasing engagement, and relapse prevention.

In terms of measurement, initial screenings were not conducted for all patients due to practical constraints and concern over false positives. Instead, PCPs referred patients who they thought would meet criteria for inclusion, who were then screened. Following enrollment in the study, cases were assessed independently at baseline, post-treatment (12 weeks), and follow-up

(24 weeks). Semi-structured clinical interviews were conducted at baseline in order to establish accurate diagnoses (K-SADS). At all three time points, youth and parents completed measures of emotional distress and improvement (SCARED and CDI) and clinicians completed a measure of overall functioning (CGI). Rather than present aggregate results, the authors chose to present the results by describing IBBT implementation in detail for two specific cases treated. Both case studies demonstrated clinically significant improvements on all measures by week 8, which were maintained at 6-month follow-up. One limitation of this program is that the brief treatment described still required 8 weeks to administer, which may be too resource intensive for many primary care facilities (Weersing, Gonzalez, Campo, & Lucas, 2008).

Following the pilot study described above, Weersing and colleagues (2017) conducted a randomized clinical trial comparing IBBT to assisted referrals for treatment of anxiety and depression in pediatric primary care. Participants included 681 children between the ages of 8 and 17 years old who were referred to participate in the program by primary care clinics in San Diego and Pittsburgh. A brief phone screener was administered to determine eligibility for baseline assessment; however, many patients (n = 163) declined at this stage or were unable to be contacted. Eligibility criteria subsequent to baseline assessment included meeting diagnosis for Separation Anxiety Disorder, Generalized Anxiety Disorder, Social Phobia, Major Depressive Disorder, Dysthymia, or "Minor Depression" (i.e., several persistent symptoms of depression that are below clinical threshold for formal diagnosis). The only exclusionary criterion was receiving current treatment for an emotional or behavioral disorder at the time of baseline assessment. Among children screened, assessed, and solicited for study enrollment, 185 were included in randomization. Approximately 78% of children included identified as white and 20% identified as Hispanic.

Master's level therapists, who attended a half-day workshop on IBBT, delivered treatment on-site at primary pediatric care facilities. These providers received significantly less training than outlined in the pilot trial above; however, no rationale for this reduction was provided in the published article. Treatment remained consistent with the previously reviewed study, though, and included 8 to 12 sessions of manualized IBBT. Families assigned to the control condition (called Assisted to Referral Care, or ARC) received feedback about children's symptom presentation, possible benefits of treatment, referrals to specialists, and biweekly problem-solving phone calls to follow-up on each of these points. Similar to the pilot study, assessments were conducted by independent evaluators who were blind to treatment condition. In addition to the measures included in pilot study, evaluators also utilized three measures to approximate functional improvement (Children's Global Adjustment Scale (CGAS); Pediatric Anxiety Rating Scale (PARS); and Children's Depression Rating Scale-Revised (CDRS-R)). Clinicians also completed the CGI at various intervals to offer an external view of longitudinal clinical improvement (Weersing et al., 2017).

Results indicated that significantly more people in the treatment group reported clinical improvement as measured by the CGI (56.8%) compared to the control group (28.2%). Additionally, participants in the IBBT group showed a significantly faster rate of functional improvement (measured by CGAS, PARS, and CDRS-R) compared to patients in the ARC condition. Additionally, participants in both groups demonstrated significant improvement in anxiety and depression symptoms over time, although participants receiving IBBT improved significantly faster compared to those in the ARC group. Results also indicated that ethnicity was a significant moderator of treatment outcome, with Hispanic participants demonstrating significantly more improvement in the IBBT condition and significantly less in the ARC

condition compared to white participants. This study provided evidence for transdiagnostic treatments integrated into primary care practices; however, more research is needed to effectively and efficiently apply this type of treatment in non-research-based clinical settings (i.e., typical pediatric practices; Weersing et al., 2017).

More broadly, evidence for integrated pediatric primary care is summarized in a recent meta-analysis that included 31 RCTs of pediatric integrated care (Asarnow, Rozenman, Wiblin, & Zeltzer, 2015). The overall sample included children and youth ages 1 to 18 years old. Given that a few studies compared multiple interventions to usual care, the final comparison group included 35 interventions compared to usual care. Of these 35 interventions, 20 were classified as treatment for emotional disorders, 5 were for substance use treatment, and 10 were prevention programs. All of the treatments studies examined in the review utilized some form of evidence-based treatment, with the two most common treatments being Cognitive Behavior Therapy (CBT) and behavioral parent training. Results indicated a small but significant overall effect size across studies for integrated treatment compared to usual care. Furthermore, service type was a significant moderator of effect size, with treatment trials demonstrating small to medium effect sizes and prevention trials demonstrating much small (often non-significant) effects. Consistent with the results outlined above suggesting efficacy of integrated services across domains of clinical presentation, treatment target was not a statistically significant moderator in this meta-analysis. Some differences were noted in the strength of effect size for different treatment targets, however, with substance use treatments demonstrating the smallest effects and treatment for emotional or behavioral problems demonstrating the largest.

Brief treatments in integrated care

The evidence presented above demonstrates a variety of integrated care models as successful methods of treating mental disorders, particularly when using specific treatment protocols targeting specific diagnoses. In general, the treatment protocols described have included five or more sessions, which is similar to treatment provided in outpatient mental health clinics. Given practical limitations of resources at many pediatric primary care practices, however, providing this level of individual treatment may not be feasible. In a theoretical article regarding integrated care for mental health, Wissow and colleagues (2008) suggested that the collaborative care model (CoCM; Wagner et al., 1996) used widely in the literature has three main limitations. First, the CoCM was based on utilizing diagnosis-specific protocols, which they argued could exclude patients with comorbid diagnoses or patients that are experiencing sub-clinical symptoms. Another limitation of the CoCM was that it required a qualified practitioner or staff member to devote considerable time to a single diagnosis, which they stated might not be cost effective for smaller facilities or more rural locations. The final limitation presented by the authors is that RCTs for integrated care models generally utilized one manualized treatment protocol, which may not be equally applicable or helpful to all people participating in the program. To address the limitations described above, the authors presented a theoretical model for understanding how to condense these treatments based on the common elements of evidence-based treatments.

This proposed theoretical variant of the CoCM model, called the "Common Factors Approach," was posited to be more practical in settings with limited resources. Utilizing this approach would allow practitioners to apply elements of evidence-based treatment (EBT) to emotional distress more broadly, rather than rely solely on individual treatments tied to specific diagnoses. These elements included specific skills that practitioners utilized to encourage

behavior change, to increase patient willingness to engage, and/or to improve interpersonal interactions between provider and patient (i.e., empathy). For example, almost all EBTs designed to treat anxiety disorders that were reviewed included exposure as a main component, whereas rewards and parental praise were common to almost all EBTs addressing disruptive behavior. The model suggested that implementing the common elements approach to treatment would allow physicians or practitioners to effectively treat classes of disorders/problems as opposed to requiring specialist-level resources for narrowly defined conditions. The authors concluded that the Common Factors Approach could easily be implemented within the CoCM, which could increase its reach to address the emotional and behavioral needs of more children with varying diagnoses. Further, this would simplify the additional education needed for physicians to a few skills that could be broadly applied.

When considering the resource limitations in rural primary care facilities, these common elements could be particularly useful in informing shorter treatment models targeting emotional distress more broadly. Utilizing evidence-based elements to inform brief, single session interventions could provide a more pragmatic and efficient approach to service delivery in this context, particularly in fast-paced primary care settings. This idea is further outlined in the Distillation and Matching Model, which proposes a data reduction approach to inform decision-making based on common practice elements, clinical diagnosis, and ethnicity (Chorpita, Daleiden, & Weisz, 2005). Additionally, many of these single session treatments can be done transdiagnostically, which could increase the reach of the program. Therefore, it is relevant to provide an overview of evidence in the literature for single session interventions.

Evidence for Single Session Treatments.

Perkins (2006) designed a cross sectional clinical study to investigate the effectiveness of a single 2-hour solution focused therapy session to treat mental health problems in children and adolescents. Two hundred and sixteen participants between the ages of 5 to 15 years old were randomly assigned to either the treatment or control group. Treatment was provided by one of eight clinicians with varied educational backgrounds (but specific, standardized training for the treatment protocol used in this study). Following intake, participants in the treatment group returned within 2 weeks to engage in a single session treatment. At the end of the 2-hour session, which focused on developing practical solutions to immediate problems, patients and clinicians worked collaboratively to determine if additional sessions or a different type of treatment might be needed. Data regarding additional sessions was presented in a follow-up study described below. Participants in both groups returned for follow-up 6 weeks post-intake, after which time control group participants were offered the same single-session treatment as previously provided to the other group. For participants in both the treatment and control, parents and teachers completed a standardized measure of psychopathology (Devereux Scales of Mental Disorders; DSMD) in which the child's score falls in average, borderline, or clinical range. Additional measures completed by participants in the treatment group included clinician report of change in global functioning (Health of the Nation Outcome Scale for Children and Adolescents; HoNOSCA) and parent ratings of satisfaction (Client Satisfaction Questionnaire; CSQ-8). Results indicated that participants in the treatment group reported significantly more improvement than those in the control group. Furthermore, the effect size (**d** =0.76) indicated high levels of clinical improvement one month following a single-session treatment. Mean parental reports of symptoms reduced from the clinical range to borderline or normal for

participants in the treatment group across all constructs measured, while the control group's mean ratings stayed in the same range as initial assessment.

Utilizing the same sample as Perkins (2006), Perkins and Scarlett (2008) investigated the long-term impact of single-session treatment 18-months post-treatment, as well as the impact of delaying treatment for 6 weeks after problem identification. Additionally, this study compared the impact of single-session treatment to multiple-session treatment on long-term outcomes. When evaluating long-term results, there were no significant within-group differences in symptom reduction between 1-month and 18-month follow-ups, demonstrating that the positive gains in the previous study were maintained. Additionally, there was no difference in outcomes following treatment delay of 6 weeks. While most patients only attended a single session of treatment, 40% received more than one session after reviewing progress at 1-month follow-up. Patients who received additional sessions demonstrated less improvement at 1-month follow-up, but showed no significant differences in clinical improvement at 18-month follow-up from patients who received one session only. This study contributes evidence of long-term success related to single-session treatment; however, results are limited due to attrition (i.e. loss of 50% by 18-month follow-up) and using delayed treatment instead of a true control group.

In a recent study, Schleider and Weisz (2018) conducted an RCT evaluating effectiveness of transdiagnostic single-session treatment for children and youth. Advertisements were sent to local schools, after-school programs, and pediatric clinics for a short skill-building program for youth who feel sad or worry more than other children. After completing an initial screener, 96 youth participated in the study. All participants attended a 2.5-hour session in the lab that included baseline measures, intervention or control activity, and post-intervention measures. Participants randomized to the intervention group completed a 20-30 minute computer program

that included psychoeducation, testimonies from other youth, and opportunities to apply and practice emotion skills in their own life. The control group engaged in a 20-30 minute computer activity that helped them identify and express emotions. Parents and youth separately completed measures of anxiety and depression, and youth completed additional measures of perceived emotional and behavioral control. Participants completed follow-up measures 3, 6, and 9 months after the intervention. At 9-month follow-up, participants in the treatment group reported significantly higher perceived control over their emotions and behaviors than those in the control group. Additionally, youth who participated in the treatment experienced significantly greater reductions in depressive symptoms significantly faster than those in the control group. Parents, however, reported significant decreases in anxiety symptoms regardless of treatment group and no group by time interactions were evident in this symptom domain. This RCT contributes evidence for the effectiveness of a 20-30 minute session for emotional distress in youth; however, the study was conducted in a lab setting rather than a real world clinic and the degree to which it might generalize is unknown.

In another lab study with college students, Bentley and colleagues (2018) modified the Unified Protocol (Barlow, Ellard, & Fairholme, 2010) to be a single-session treatment for preventative care. Three hundred and fifty undergraduate students seeking research credit completed the DASS-21 to screen for subclinical emotional distress. Students with clinical levels of distress were excluded from the current study. Participants in the final sample (n = 138) were randomized to a condition that received a workshop training (n = 68) and a second condition that received assessment only (n = 70). The intervention included one 2-hour-long intensive workshop that taught the function of emotions, emotional awareness skills, cognitive flexibility, and skills to increase engagement and decrease emotional avoidance. All participants completed

a full baseline battery that included the NEO-Five Factor Inventory (Neuroticism and Extroversion subscales only), Behavioral Activation Scale (BAS), Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q), Multidimensional Experiential Avoidance Questionnaire (MEAQ), and the Emotion Regulation Questionnaire-Reappraisal subscale (ERQ-R). Participants in the treatment group reported significantly better quality of life at one month follow up than those in the control group. Other outcome measures demonstrated expected trends, but were not statistically significant when comparing intervention to control. Regarding within-condition analyses, the intervention group demonstrated statistically significant improvements on measures of neuroticism, quality of life, and experiential avoidance by one-month follow-up, but the control group did not. Although this study provides some evidence for SST for preventative treatment, more research is needed to evaluate effectiveness in clinical populations.

Schleider and Weisz (2017) conducted a meta analysis 50 studies of SST for diverse clinical symptoms. All studies involved children or youth who were randomly assigned to SST or control groups, with most of the SSTs comprising therapist-administered preventative programs. Overall treatment effect size for SST was small (**d** = 0.32), but statistically significant. The authors also noted that treatment effects were significantly stronger for anxiety (**d** = 0.58) and conduct problems (**d** = 0.52) than for depression or substance use, and that behavioral treatments demonstrated significantly larger effect sizes (**d** =0.74) than any other treatments (i.e. youth non-behavioral **d** =0.26 and family-focused **d** =0.31).

Evidence from the many RCTs described above supports integrated care models and brief single session treatments for a variety of mental health problems in pediatric primary care settings. Brief integrated interventions could also offer an economic solution to improving

limitations in access to care. Implementing integrated care programs in real-world clinics, however, requires further investigation of some practical considerations about program design, implementation, and evaluation (reviewed below).

Implementation of integrated care

Wissow and colleagues (2017) provided a framework for how to evaluate the implementation of integrated care programs. This framework was divided into five main categories including contextual factors, modifications of office structure, patient engagement, social factors related to care, and coordinated evidence based treatments. The first category, contextual factors, emphasized factors that impact integration inside and outside the practice, but are not directly related to service provision. For example, this would include considerations regarding the staff and climate within the clinic, as well as the broader socio-cultural factors in the region surrounding the clinic. The second category for successful integration, modifications of office structure, emphasized systemic changes, including additional trainings for physicians or staff, implementing procedures to identify patients in need of services, and delegating new or additional tasks to staff members (potentially necessitating hiring new positions).

The next category, eliciting patient feedback, focused on engaging patients from the very beginning of treatment planning to foster more involvement and commitment throughout treatment. The fourth category, social factors, focused on basic needs, family structure, and educational problems. When working with children, family and school environments play a significant role in treatment success, which means that a successful integrated program would help ensure families, schools, and physicians are all working together to benefit the child. The final category, evidence-based treatments, emphasized that primary care physicians need to

utilize EBTs that are adapted to fit the environment of a pediatrician's office (e.g., SSTs described earlier; Wissow, Brown, Hilt, & Sarvet, 2017).

Wissow and colleagues (2017) suggested using mixed qualitative and quantitative design studies to investigate the effectiveness of integrated programs using the model described above. Furthermore, the authors suggested that the formal use of a logic model to organize and guide the program would typically be useful in this effort. A logic model is a graphical representation of program resources, intended activities, and short- and long-term outcomes (WK Kellogg Foundation, 2004). This tool is commonly used in program evaluation literature and will be discussed in more detail later. Additionally, authors encouraged frequently measuring the degree of implementation of program components, as well as mental health outcome data for relevant symptoms.

Rural Considerations

Current research has demonstrated support for many different integrated care models in treatment for mental health disorders; however, most of the research has been conducted in urban or suburban areas and the extent to which these findings generalize to rural areas is unknown. These considerations are likely important for adaptation of published integrate care models, given unique factors associated with rural environments. Shelby-Nelson and colleagues (2018), for example, described four main characteristics that distinguish rural communities. First, rural residents were noted to typically exhibit several increased vulnerabilities for certain pathologies, including greater risk of substance use disorders, suicide, chronic heath conditions, and mental health comorbidities. Despite this increased base rate of serious conditions, the authors also noted that availability of care (the second main characteristic) was limited in rural areas, which is consistent with evidence reviewed throughout this paper. This was particularly the case for

mental health services, wherein approximately 60% of rural Americans lived in areas with shortages in these services. The third main characteristic, accessibility, referred to increased susceptibility to environmental issues such as poverty rates, scarcity of resources, unemployment, and lower education. Finally, the fourth main characteristic is decreased anonymity and increased stigma regarding mental health treatment. The result of this final characteristic is that rural residents are substantially more likely than those living in urban settings to seek mental health advice from primary care providers (i.e., previously established rapport; reduced stigma for physical illness). The authors suggested that integrate care programs could help bridge the gap in specialists resources in a context with fewer barriers to access and acceptability. In particular, they indicated that behavioral health providers could be flexible in terms of the cases retained for in-house services as a way to increase engagement and likelihood that patients return for sustained treatment (Shelby-Nelson, Bradley, Schiefer, & Hoover-Thompson, 2018).

Program Evaluation

On the basis of the literature reviewed, it appears that integrated behavioral health care is a successful model for efficiently promoting positive treatment outcomes for a wide range of clinical conditions. Further, the studies reviewed indicate that integration has the potential to increase service accessibility for people who would otherwise experience barriers to mental health specialty treatment, particularly those living in rural areas. The synthesis of this research suggests that transdiagnostic treatment techniques, delivered flexibly in a systematically constructed organizational environment, may be optimal for promoting greater overall health of children and adolescents. Additionally, insular economic analyses that could be located also suggest that these programs may be more fiscally efficient than extant, fragmented approaches to

mental health service delivery. This synopsis of the literature relies on combination from diverse areas of study, however, and awaits empirical investigation through application. The most well developed set of tools for this purpose are those described in literature on program evaluation.

Program evaluation is a type of applied research that systematically examines outcomes and processes of social programs using reliable and valid scientific tools (Royse, Thyer, & Padgett, 2009). An initial component of this approach includes a needs assessment, which refers to the attempt to identify deficiencies in services to inform the development of programs and allocation of resources (Royse et al., 2009). For example, when conducting a needs assessment for an integrated care program, evaluators could look at the evidence for mental health disorders in children and limitations in access to care to determine demand for additional services. In terms of design, this type of research typically utilizes a mixed methods approach, which includes both qualitative and quantitative methods (consistent with those recommended earlier by Wissow et al., 2017). This is commonly realized through use of qualitative interviews in conjunction with quantitative questionnaires in an attempt to improve triangulation of data (i.e., different types of data derived from various points of view, which converge to improve the overall accuracy of conclusions).

During initial program development, formative evaluations are used to investigate the success of a pilot program in terms of service provision, resources used, and potential problems to implementation. In general, formative program evaluations begin with construction of a logic model, which is a tool for explaining the proposed components and desired outcomes of a program (Royse et al., 2009). Logic models are used to inform conceptualization in terms of inputs, activities, outputs, and outcomes. Inputs refer to the specific resources needed for the success of the program. Activities are the actual services provided by the program staff. Outputs

focus on quantifiable outcomes of the services provided (e.g., number of sessions offered or number of pamphlets provided). Outcomes refer to both short- and long-term changes in individual patients, as well as discernible changes in the overall system as a result of an individual program. A formal process for creating and implementing logic models in program evaluation was published by the WK Kellogg Foundation (2004). This guide describes different variants of logic models and how to use the graphics across all stages of development and implementation to optimally coordinate program conceptualization, startup, and refinement.

The next step in program evaluation, termed process evaluation, is focused on description, monitoring, quality assurance, or some combination of these three goals. Saunders and colleagues (2005) designed a step-by-step approach to developing a comprehensive process evaluation plan that will be described in more detail in the methods section, but the main terms are relevant to define here. Program description focuses on detailing the operations of a program to aid in quantitative study and enhance accurate replication in the event of program success. Program monitoring refers to the ongoing process of tracking the outputs and outcomes related to specific program goals. Objectives and key results (OKRs) provide a model for structuring and tracking these goals (Doerr, 2018). This system emphasizes creating concrete goals (called objectives) and specific, measurable, time-limited steps (called key results) to achieving those goals. Finally, quality assurance is the process of ensuring that the program conforms to a set of standards. These standards are generally specific to each program based on individual resources, activities, and goals.

The final stage in program evaluation, summative evaluation, seeks to answer the question “Did our program achieve its goals?” (Royse et al., 2009). As mentioned earlier, program-related OKRs provide a structured framework for organizing a measurable method to

answer these questions (Doerr, 2018). Similarly, documentation of information related to presenting problems, planning and implementation of treatment, provider qualifications and experience, and outcomes of treatment is beneficial in monitoring overall program success (Royse et al., 2009).

Program evaluations in the literature

Many researchers have utilized program evaluation tools in a variety of ways based on time, resources, and specific evaluation questions. Kleinsorge and colleagues (2010) conducted a program evaluation to determine if a training clinic was meeting the national standards of a primary care medical home. One hundred and seven families participated in this survey at a Midwestern pediatric primary care medical center. Parental feedback was collected through a survey that included measures related to client satisfaction (client satisfaction questionnaire-8; CSQ-8), parent perception of care quality (parents perception of primary care; P3C), parent perception of physician compassion and communication (consumer assessment of health plan study; CAHPS), and questions regarding cultural competence and comprehensiveness of care. Medical staff (n = 16) also answered questions regarding job satisfaction and open-ended questions about things they liked and things they would have liked to change in their jobs. According to the CSQ-8, the majority of parents reported high levels of satisfaction with services received in the training clinic (70%), and an overall high quality of care as measured by P3C. When evaluating the impact of racial/ethnic differences, African Americans reported lower quality of care than other ethnic groups. Feedback from medical staff indicated that they were satisfied with perceived quality and continuity of care. On qualitative measures of what they would like to change, the two most often cited changes were a need for larger nursing staff and for improvements in appointment efficiency.

Barber and colleagues (2011) focused on description of the development and implementation of the Mental Health Primary Care (MHPC) program housed in the Connecticut VA system at the West Haven campus (VACHS-WH). Several years ago, the VACHS-WH began integration with a co-located health psychology clinic that focused on coordinated treatment for pain, obesity, sleep, smoking, and chronic care management. The MHPC program later expanded these services to treat a broader range of mental health issues, and began to serve 4 primary care clinics across two connected buildings. The MHPC model of integrated care relied on three team members that were always available on site, facilitating a "warm handoff" approach to referral (i.e., an existing provider establishes contact with a behavioral health provider with the patient, which serves as a form of endorsement). The psychologist provided consultation with PCPs, patient assessment, and brief treatment. A registered nurse was also available to serve as a liaison for the patient and provide brief evaluations, follow-up calls, and aid in treatment plan implementation. Finally, a health technician was available to serve as a care manger and help manage appointments. A rotating team of psychiatrists was also available at the clinic for temporary medication management, which could be transferred back to PCPs after stabilization. The entire program was designed to be tailored to the level of each individual using an informal stepped-care approach. The levels of care could include consultation between MHPC staff and PCP, group treatment, brief treatment through MHPC, or referral to specialty mental health clinic (SMH). Brief treatment included 3 to 5 sessions with a psychologist or 1 to 3 sessions with a psychiatrist.

After detailing the development of the integrated program, the authors sought to evaluate the implementation in terms of outputs and clinical outcomes. The sample size included 231 individuals who were primarily male (94%) and white (74%). Primary referral reasons included

depression and anxiety, and approximately 49% were referred informally through warm handoffs. The majority of patients (64%) were evaluated on the same day as initial referral, and the average wait time for patients not seen on the same day was 13 days. (Providers at the MHPC generally attempted to schedule future appointments on days when patients would already be at the VA, which likely elevated this average.) Approximately 40% of patients referred to MHPC had no prior psychological treatment. The average number of visits with a psychologist, nurse, or psychiatrist was approximately 4 each per veteran. Clinical outcome data was reported in terms of current treatment status of veterans referred to the MHPC, with 29.4% of participants receiving treatment at the MHPC and being discharged (with an additional 12% still in treatment at the time of evaluation). Given the brief nature of in-house treatment, an additional 29% of patients were referred to SMH clinics after initial evaluation or brief therapy provision at MHPC. The remaining 30% of referrals were lost before follow-up or classified as "other," which was not further delineated in the article. Procedural results of this study demonstrated that co-located services could work for a large-scale healthcare clinic such as the VA. This study differed from many other integrated studies in that it focused on offering a broad range of clinical services rather than one specific treatment (e.g., depression; anxiety; adjustment; PTSD; sleep; health management; Barber et al., 2011).

Another program evaluation in the literature focused primarily on cost effectiveness of having a behavioral health clinician on staff at a primary care practice (Ross et al., 2018). Using the Blue Cross Blue Shield of Kansas City claims data, 239 patients who had at least one encounter with the integrated services program were included in analyses. A licensed clinical psychologist was embedded into a large primary care practice that had Patient Centered Medical Home certification. Office workflow was analyzed prior to beginning the program to formulate a

plan for restructuring. The psychologist offered brief therapy sessions, consultations with PCP, warm handoffs, and patient support via email or phone. It was noted that the psychologist could be requested for services or consultations through the internal instant messaging system, which allowed most meetings to be efficiently conducted in the medical patient rooms. Additionally, the psychologist had a centralized office for brief therapy (i.e., 30 minutes) and to improve accessibility for PCPs. When these brief interventions were not successful and/or deemed to be too minimal for a patients needs, the psychologist also provided referrals to specialized mental health clinics for more intensive services.

Health claims data were collected for 21 months prior to integration and 18 months post-integration. During the 18-month integration period, the psychologist reported 1,770 encounters with patients, which was approximately 3% of the total encounters for the practice (and thus a high utilization of these services). Long-term savings was calculated by comparing total capitated cost pre-integration (i.e., inpatient; outpatient; professional; prescription) and post-integration to projected costs (calculated based on all members of the facility). Integration demonstrated an overall actualized savings of 10.8%, with additional short-term savings modeled from estimated hospitalization diversions ($261,821.88). Providers and patients both rated the integrate program high on the satisfaction survey. In terms of clinical outcome data, 346 patients who had two or more encounters with the psychologist were analyzed for pre- and post-intervention scores on self-report measures of emotional distress and physiological indexes. Patients demonstrated significant improvement on emotional as well as physiological variables, including Low Density Lipoprotein (LDL), Body Mass Index (BMI), and Hemoglobin A1C (HbA1C). This indicates that integrating mental health services could improve numerous

markers of health, while simultaneously contributing to greater cost efficiency (Ross et al., 2018).

The research summarized so far has demonstrated the use of program evaluation tools in the literature, which are more succinctly summarized in a recently published study. Zima and colleagues (2018) designed and implemented two integrated care models across five and a half years in Chicago. The authors partnered with the Illinois Children's Healthcare Foundation to offer services to children served by federally qualified health care centers. The explicit goal of the program was to evaluate the impact of two integrated care programs with racial minority children who live in lower socioeconomic areas utilizing the partnered approach, which emphasizes coordination among the Foundation providing financial support, the research team, and clinicians implementing the program. This article focused discussion on processes related to program development and early implementation. The first site was already part of a network of community and school based clinics with good relationships with five local mental health clinics. Zima and colleagues adapted the current adult integrated care model in place to serve children as well. The first steps for this adaptation included adding pediatric primary care services to the human services agency, forming new relationships with other clinics, and creating space for the mental health team in the office.

The study consisted of three formative evaluation stages: development, implementation, and progress. At the time of publication the study was still in progress, so this paper focused primarily on the development and implementation stages. The development stage focused on planning the care model for the clinical program (which differed only slightly across sites). Patient flow was established to include brief mental health screening before pediatrician visits and completion of a more detailed mental health assessment when results suggested clinical

elevation. Additionally, clinical referrals were frequently provided to on-site therapy, social services, and/or parent training. Some minor differences between sites included the qualifications of behavioral health specialists. Site 1 employed licensed clinical social workers, and site 2 had licensed professional counselors. Given this difference in qualifications, site 2 offered on-site therapy services, while site 1 referred to community mental health for services beyond brief therapy. To inform development, members of the research team met regularly with clinic staff members regarding accomplishments and problems with program implementation. Sources of data included minutes from implementation meetings, 6-month progress reports, analyses of work flow, and documents of changes made to programs.

During the implementation stage, services were expanded at both sites to include on-site psychiatrists (supported by grant funding for a 5-year trial). This stage of the program focused on describing the care received by families and clinical outcomes at 3, 6, and 12 months. No clinical outcome data were presented since data collection was ongoing. The progress stage was focused on data collection by an on site data coordinator, weekly data monitoring calls, and an online data-tracking tool. Even though data analyses were discussed in this paper, the authors provided an organized set of procedures for program integration and evaluation that can be used to inform similar efforts of program design, implementation, and evaluation.

Muse and colleagues (2017) conducted a systematic review of evaluation research that included 46 studies with a variety of methods to evaluate integrated behavioral health care programs in terms of clinical, operational, or financial characteristics. In particular, the authors viewed the results of evaluation studies through the three-world view (TWV) model. The TWV model suggests that successful integrated care models depend on clinical, operational, and financial "worlds." Clinical considerations refer to the type of care and quality of care provided.

Operational considerations focus on consistency and reliability of organizational characteristics. Finally, the financial world refers to efficiency and monetary concerns. Given substantial evidence for clinical success of integrated care models in the literature, this review focused on the operational and financial characteristics. The authors sought to outline the main components of the organizational and financial worlds based on factors included in previous studies. Forty-six studies met inclusion criteria for review; however, only 6 studies used a formal evaluation tool. The researchers coded the studies for various operational and financial characteristics and worked together to group these characteristics into clusters.

Based on results of the coded studies, the operational world was divided into two main clusters: practice-level operations and provider-level operations. Practice-level operations included characteristics such as organizational barriers, charts and treatment plans, implementation, proximity, referral methods, scheduling practices, and space sharing. Provider-level characteristics included collaboration and communication factors. Additionally, coding results indicated that the financial world could be sorted into three clusters: patient-level, provider-level, and system-level financial characteristics. Patient-level financial characteristics included no-show rates, patient volume, and wait times. Provider-level characteristics referred to clinician distribution of time, length of behavioral health encounter, and workforce development. Finally, system-level characteristics included reimbursement, overall revenue, financial sustainability, and billing procedures. The authors conclude with the recommendation that future evaluations seek to investigate clinical, operational, and financial characteristics in order to offer a test of the derived model (Muse, Lamson, Didericksen, & Hodgson, 2017).

Although program evaluation tools and procedures have been widely used and established, there are also common challenges in this area of research. Funderburk and

Shepardson (2017) looked at two examples of program evaluations of integrated behavioral health to determine challenges of program evaluation implementation and potential ways to improve research methods. According to the authors, lack of strategic planning poses a major threat to successful program evaluations. Utilizing evidence based theories to inform construction of a detailed logic model that includes specific outcomes can help reduce this threat. They also discussed methodological and measurement difficulties in program evaluations, and suggested that these potential pitfalls could be reduced by using mixed methods designs, comparison groups, and empirically validated measurement tools. The final pitfall they discussed was maintaining consistency in program implementation. Ensuring that all staff members administer measures and treatment consistently across patients greatly improves the reliability of the program evaluation. They further suggested that fidelity checklists and audio or video recordings could be used to verify consistent implementation.

Summary and current study

Mental health disorders affect a large number of children and youth in the U.S.; however, many of those individuals lack adequate access to care (Nguyen et al., 2018). Results from many RCTs have demonstrated integrated care models as effective methods of treating emotional and behavioral disorders (Asarnow et al., 2015). Additional studies have shown integrated care to be a cost effective method of treatment, which could greatly improve access to care limitations if applied more widely. Furthermore, integrated care models could be adapted based on common elements of evidence-based treatments and the growing evidence for the effectiveness of brief treatments. In particular, adaptation with consideration unique aspects of rural environments would contribute to the existing literature, particularly if process development and program outcome were monitored using program evaluation tools. The current project thus seeks to utilize

formative program evaluation tools to design an integrated mental health program in a rural pediatric primary care clinic. This project will also use summative program evaluation methods to investigate the implementation and effectiveness of this integrated care program.

CHAPTER II: METHODS

Participants

A local pediatric medical office with seven practitioners (4 MDs and 3 NPs) has agreed to participate in this project. In terms of clinical participants, patients receiving care at the clinic were recruited for participation through routine screening or physician referral for assessment or intervention (See Table 1 and 2 for demographics). Additionally, this project looked at organizational and system factors based on the participating pediatric primary care clinic. At all stages of development physician and employee feedback was requested in order to shape the process and determine the relevant benchmarks for successful integration.

Pilot work began in October 2018 when the author (K.J.) began volunteering on a limited basis in the hope of establishing a foundation for future collaboration and clinical integration. This early work has been focused on demonstrating what services and benefits could be provided through integrated care at the pediatric clinic. It has also provided the opportunity to observe and begin to understand the clinical needs of this practice, as well as organizational processes and workflow that could inform flexible process development. For example, pilot work has demonstrated that the pediatricians are particularly interested in assistance with diagnosing ADHD and monitoring the outcomes of treatment when indicated (due to these issues being encountered very frequently). Knowing this and attempting to assist with relevant clinical services, it became apparent that organizational factors dictated that optimal timing for conducting such assessments in terms of minimizing noise and other distractions was at noon (i.e., PCPs do not schedule patients between noon and 1:30 PM and the clinic is quiet). Thus far,

pilot work has been well received by physicians, nursing staff, and patients as evidenced by qualitative feedback and their willingness to fund an external practicum placement for the primary researcher. Nothing particularly substantial in terms of the formal process models outlined in this paper has occurred, though, which facilitates numerous possibilities in the course of this project.

Measures

This study employed a mixed-methods approach and utilized qualitative and quantitative measures. All patients ages 5 and above were eligible for initial clinical screening using an adaptive, computerized measure of a broad range of clinical difficulties (e.g., depression, attention difficulties, anxiety, behavior problems, substance use, and suicidality). Additional clinical measures were administered to children/youth or parents based on presenting problem, with some standardization of clinical instrumentation for each domain of impairment. For example, the Vanderbilt Assessment Scales were administered to parents and/or teachers to assess symptoms of inattention, hyperactivity, and behavior problems (Parent version; Wolraich, Lambert, Doffing, Bickman, Simmons, & Worley, 2003 and Teacher version; Wolraich, Feurer, Hannah, Baumgaertel, & Pinnock, 1998). A child presenting with emotional symptoms (i.e., anxiety and/or depression) often completed the Revised Children's Anxiety and Depression Scale (RCADS; Chorpita, Yim, Moffit, Umemoto, & Francis, 2000), which sometimes included administration of the parent version of the same measure (RCADS-P; Ebesutani, Bernstein, Nakamura, Chorpita, & Weisz, 2010). Formal procedures for timing and method of administering follow-up measures were designed as part of the initial process evaluation, thus presentation at this stage is sparse. All instruments were selected with regard to their established

psychometric performance and attention to availability and cost (with free instruments being implemented as often as appropriate, in order to facilitate sustained use).

Additionally, the project sought to formally examine program implementation factors through qualitative feedback and an empirically supported measure evaluating innovation factors, provider factors, patient factors, and contextual factors that contribute to the success of a program (Barriers and Facilitators Assessment Instrument; Chaudoir, Dugan, & Barr, 2013; Peters, Harmsen, Laurant, & Wensing, 2002). Program outputs were measured in terms of number of treatment sessions delivered, the number of assessments conducted, insurance reimbursement for psychosocial screening/services, care team meetings, and staff training provided. Data regarding type of treatment provided, presenting problem, demographic factors of patients, and insurance type (grossly divided a priori between private and public) were collected. Additional measures were used to evaluate staff, provider and patient satisfaction throughout implementation.

Stage 1: Formative/Development Phase

Process and program development followed the model described by Saunders and colleagues (2005) that outlined six steps to conducting process evaluations. The first step is to describe the program including theory, objectives, activities, and expected impact and outcomes. This step was accomplished using the Three World View (TWV) to create a logic model addressing all factors of the program in an efficient way consistent with program evaluation literature. Logic model construction used the Kellogg foundation guidelines (2004). These guidelines describe basic logic models and three categories of advanced logic models: theory approach, outcome approach, and activities approach models. An activities approach logic model

focuses on implementation of a program and monitoring results in applied settings. This approach to logic models seeks to describe the relationship between certain activities and individual outcomes in detail. During the formative stage a basic logic model focused on overall program implementation was constructed (see Figure 1). Construction of the logic model was informed by empirical research and consultation with physicians and staff at the pediatric group.

The second step of process development was to provide detail regarding program components and implementation plans including fidelity, dose delivered, dose received, program reach, recruitment, and context. This stage still focuses significantly on description of what constitutes complete and adequate program implementation. The primary researcher built upon the logic model and to complete an initial plan with the explicit understanding that this plan was subject to change as a result of ongoing assessment and implementation. To accomplish this task, the primary researcher reviewed the models described previously with particular emphasis on rural considerations. This initial description of program details was edited collaboratively with lab researchers (including faculty advisor) and staff members at the pediatric clinic.

The next three steps of the Saunders et al. (2005) model are intended to be applied iteratively rather than linearly: develop a list of process questions, determine methods, and consider program resources, context, and characteristics. This part of the process focused on developing program specific questions and evaluation methods that can be modified as needed throughout implementation based on organizational need and resources. Initially, theory and pilot work were used to inform the potential list of questions. When considering each question, the researcher then examined the resources available to address that question, which in turn informed methods for empirical investigation within contextual constraints. This iterative process of creating process-oriented questions and methods of evaluation continued throughout

design of the program to help address any problems or complications that arise. Ongoing assessment and modifications were a central component of all process evaluation methods. The final stage was to create a cogent evaluation plan that can be generally communicated through a simplified description of how each step in the process is to be completed (thus enabling input from a wider range of sources, as compared to more complex statistical presentation). The resulting program from this iterative process was then described in detail, using a logic model.

Throughout this formative process, the investigator was working at the pediatric clinic as an integrated behavioral health provider in the capacity of a newly-funded practicum position. Clinical activities considered through the TWV model will likely primarily include providing assessments (e.g., comprehensive ADHD evaluations), individual therapy (typically brief or SSTs), and care management services for patients. To evaluate these factors in terms of apportionment of time, a document was be created to track patient referral date, scheduled date of service delivery, actual date of service delivery, presenting clinical problem, treatment components of services offered, treatment frequency/duration, and care management services (including but not limited to: follow-up phone calls, consultations with PCPs, and assisted referrals to specialty clinics when needed). Similarly, organizational activities considered through the TWV entailed tracking and improving system factors such as wait times (i.e., efficiency analysis), developing and refining an internal and external referral system, establishing the best method of communication with PCPs, and other integrated factors (e.g., procedures for writing and adding notes to patient charts; tracking program implementation; other practical aspects of system integration; etc.). To accomplish these tasks, the researcher emphasized ongoing collaboration with providers and staff at the pediatric clinic and seek out positive and negative feedback from PCPs, nurses, and staff (particularly negative feedback, as it

is more likely to identify areas where processes and procedures could be improved and sustainability could be fostered). Finally, financial considerations in the TWV model included working with billing staff to track billable hours and assist in contacting insurance companies for clarification when needed. A shared document was used for these purposes and will include detailed information relating to insurance type, diagnosis, reimbursement amount, and denial reason if applicable. The long-term goal related to this economic analysis was to determine how to make similar positions financially sustainable such that integrated care can be adopted in other rural clinics and/or cities with Ph.D. programs in clinical psychology. All daily activities within all three domains were recorded with particular emphasis on finding solutions for problems that arise during implementation and understanding distribution of BHP time across the various tasks. Thus, adaptation was ongoing, an expected part of the process, and a central part of what was recorded, described, and examined in the course of evaluation.

Stage 2: Program Effectiveness/ Summative Evaluation

After the program design was formalized through the process techniques described above, the second aim of this project was to complete a summative evaluation regarding program effectiveness. This consisted of implementing the program designed in stage one and assessing success in terms of program outputs, clinical measures, and staff report, with particular emphasis on flexibility and ongoing assessment to determine the need for and implement changes as indicated. The logic model designed in formative stage was utilized in this effort to describe potential connections between program services and intended outcomes (see Figure 1). During this stage, the researcher implemented the program as designed with greater emphasis on outcomes and outputs than process improvements (although these will also be sustained).

CHAPTER III: RESULTS

Construction and utilization of a logic model formed the foundation of both the formative and summative stages of this study. Saunders and colleagues (2005) process evaluation steps (described on page 54) were conceptualized and implemented using the framework of a logic model to streamline organization. Thus, the structure and flow of the logic model will be used to organize the presentation of results from both stages simultaneously (see Figure 1 on page 110). Components in the logic model will be discussed sequentially, but it is relevant to note that the creation of this model was an iterative process due to the interconnectedness of all components (i.e., the resources, activities, and measurement methods).

Clinical World

Resources needed for program (column 1). In order to accomplish the clinical aims of this integrated care program, the following resources were necessary. Administration of integrated services on site required the presence of a Behavioral Health Provider (BHP), which was accomplished through collaboration with the University of Mississippi by establishing an external practicum site for one graduate student in the clinical psychology PhD program. This practicum contract provided the pediatric office with a BHP on site part-time (i.e, 20 hours per week). It is relevant to note that utilizing psychologists in training required supervision from a licensed clinical psychologist, which was provided by a faculty member at the university.

Another important resource for successful integrated programs is a physical space for the BHP to conduct clinical activities. This resource can be accomplished via use of a traditional

exam room or a separate room specifically for behavioral health. At this specific site, the BHP was provided with a unique office space separate from exam rooms. Creating a specific space for behavioral health was a priority at this site to maintain use of exam rooms for physician appointments. Thus, the BHP conducted brief consultations and screenings in the patient exam rooms and longer, scheduled appointments in the behavioral health room. This allowed for more flexible utilization of the BHP with less interference with the current office flow.

Access to patient charts and contact information is also an important part of implementing this integrated care model. This process was adapted and refined during the first month of implementation to improve efficiency. Initially, the BHP was not given a unique login to the medical record system but rather used a general login with the permissions of office staff rather than physician permissions. This allowed for viewing of chart and contact information but not the ability to edit or add notes into the chart. In the original iteration of this structure, notes were typed separately and scanned into the documents section instead of directly within the chart. Upon consultation with PCPs and the office manager, the Electronic Medical Record (EMR) software company was contacted to add a unique login for the BHP specifically. This transition allowed for the BHP to input notes directly into patient charts (as well as operational and financial improvements that will be discussed later).

Another crucial resource to implementing integrated clinical activities is time and space for consultations with PCPs. To better understand how consultations were completed, it is relevant to briefly describe the physical set up of this site specifically. The pediatric site featured a separate well side and sick side (i.e., waiting rooms, triage rooms, and exam rooms). The hallway connecting these two sides had two shared work spaces (one for nurses and one for MDs and NPs). Thus, consultations with nurses and PCPs were largely conducted in one of the shared

work spaces rather than a meeting room or individual offices. This structure also seemed to encourage face-to-face collaboration between providers and nurses. Consultations at this site were conducted informally and as needed. Often consultations happened while walking through the clinic as the physician moved towards the next patient room. This method reduced time cost to physicians, but slightly complicated the estimation of consultation time given that consultations happened in frequent, brief increments.

Components of program and evidence of implementation (columns 2 and 3). This section will discuss all clinical components of the program and the evidence of implementation simultaneously. In line with the literature in program evaluation research, descriptive data are primarily used to demonstrate delivery of program components. Additionally, program outputs are written in blue on the logic model (see page 110).

Screener administration. Initially, the goal regarding screening was to screen all children at well visits for emotional/behavioral difficulties. This was conducted using a broad emotional/behavioral screener developed at the University of Mississippi that is administered online (primarily using a tablet). This screener can be emailed to patients for completing prior to attending appointments; however, many families had difficulty accessing these screeners online. When discussing these difficulties, many parents indicated that they had not received the link via email even after discussion with the BHP about the appearance of these emails and a recommendation to check the spam folder. Further, other families verbally confirmed receiving the link via phone call but still never completed the assessment. Additionally, the clinic did not own any tablets, which meant that the BHP was utilizing personal equipment for administration on site. Thus, emotional/behavioral screening was limited to time when the BHP was on site and not with a patient. One other complication with this process was related to insufficient staffing at

the clinic. The front office remained short staffed for the duration of data collection while trying to hire a new member of the front office team. This limited flexibility and availability of front office staff to provide assistance in administration of screeners to patients. Thus, through many discussions with PCPs, the plan was adapted to only screening at-risk patients referred by the PCP (i.e., not ubiquitous implementation as planned). It is relevant to note that adaptations are still being made to this procedure (discussed more in the future directions).

Administer assessments. One primary role of the integrated BHP was providing on-site assessments based on PCP referral (Table 3). The differential diagnoses were tracked as an output of accurate assessments and used to further inform manual creation and clinical needs of the facility (see Table 4). ADHD assessments were one of the most frequent referrals (43 completed assessments). The assessment battery included a general screener, the Vanderbilt Assessment Scales (Parent and Teacher), structured clinical interviews (P-ChIPS and ChIPS), and Conners' Continuous Performance Test-II. This CPT-II was owned by a local private practice that allowed the BHP to utilize it one day per week. The ADHD psychoeducation module of the manual (Appendix K) was utilized alongside the assessments as a tool to inform parents what ADHD is and is not at the time of assessment. Thus, the psychoeducation provided could be referenced when providing either positive or negative results.

Emotional/behavioral assessments emphasized differential diagnosis of emotional/behavioral disorders including anxiety disorders, mood disorders, and disruptive behavior disorders (16 completed). Emotional/behavioral assessments were largely based on referral process and screening through PCP; however, as time progressed families began calling in independently for emotional/behavioral concerns (i.e., 1 family for emotional assessment, 3 families for behavior problems, and 3 for attention difficulties). Emotional/behavioral

assessments included self-report measure(s) appropriate to age group and presenting problem as well as structured clinical interviews (P-ChIPS and ChIPS) that were administered independently to parent/guardian and child. Following case conceptualization and differential diagnosis, an informal level of care analysis was conducted to determine and recommend an intervention modality. Informal level of care considerations largely emphasized presenting problem severity; however, other relevant, idiographic factors were also considered (i.e., travel limitations, local waitlists, limited community providers in insurance network, etc.). Intervention modalities available included brief targeted single-session intervention, the option for in-house brief therapy (6 weeks), or referral for community-based therapy. Additionally, consultations with physicians and families regarding higher levels of care (i.e., inpatient) were conducted as clinically relevant. These consultations resulted in one admittance to inpatient due to suicidality and keeping a few other children out of inpatient to be treated at a lower level of care.

Learning assessments were conducted less frequently due to the resources needed (i.e., time, testing equipment, and cost) and educational nature (3 completed). Given how learning disorders are classified, many insurance companies do not cover educational evaluations, stating that these should be funded through the school. Additionally, these assessments took up substantial time (3-4 hours), which limited the BHP time for other clinical activities. The same private practice that loaned the CPT-II for ADHD assessments provided the testing equipment for learning assessments (i.e., WISC-V and WIAT-III). These assessments were conducted when a patient had been assessed for ADHD and emotional disorders in-house without meeting criteria for any disorder. Families were initially encouraged to seek evaluation through the child's school system. Families were offered in-house assessment or referral to community agency for testing if the school declined to assess or if parents wanted to reduce the wait time typically involved in

the school process. It was explained to all families that in-house testing would provide only an abbreviated report compared to comprehensive testing and report writing provided at other clinics given particular time constraints at the pediatric office. When parents were provided with feedback, they were encouraged to contact the BHP with any questions concerning communication with schools regarding appropriate accommodations (including formal Individualized Education Plans (IEP) or services through the Tier program).

Brief Interventions. The brief interventions were based on practice elements of evidence based interventions (Chorpita et al., 2005). As part of program development, a modular based manual for targeted single session interventions (Appendix K) was written with 10 brief modules (see Table 5 for implementation counts). Patient/family handouts were written to help guide discussion and promote retention of skills, thus each module in this manual has a corresponding handout.

The manual included 5 modules to address emotional concerns, with three general emotional skills and two more targeted skills. When looking at the general emotional skills, the Emotional Psychoeducation module emphasized teaching the three component model of emotions (count: 14). This module was used when the presenting problem was related to anxiety and/or general emotional reactivity. This skill was taught to the patient and family to help understand emotions and begin the process of healthy emotion identification and expression. Next, the Mindfulness module was used frequently due to its transdiagnostic utility (Ehrenreich-May et al., 2017), tangible application, and brevity (count: 23). This module provided rationale for mindfulness and example practice exercises including the five senses, mindful eating, deep breathing, body scan, and PMR. One handout in this module is designed to be child-facing while the other is written for the parents/guardians. Finally, the Problem Solving module was used to

teach patients a structured method of problem solving (count: 6). This module was utilized for a variety of presenting problems (i.e., anxiety, lying, and general behavior problems).

The two targeted emotional modules included behavioral activation and exposure. The Behavioral Activation module was primarily utilized when depressive symptoms were the main area of concern (count: 6). Discussion with the patient and family emphasized rationale for behavioral activation as well as activity selection. The patient handouts for this model include an information sheet with corresponding worksheet and activity diary to foster implementation of the skill at home. Next, the Exposure module taught patients and families about reducing avoidance and facing fears (count: 7). It was primarily used when children presented with anxious arousal related to specific things and some insight into their own emotions. Like behavioral activation, the patient handouts included information and a worksheet to guide creation of a fear hierarchy and exposure activities at home.

The manual also included two skills focused on addressing behavioral problems (i.e., tantruming, non-compliance, etc). The Rewards module emphasized teaching parents how to create a positive reinforcement system at home to increase positive behaviors (count: 18). The Instructions module was used when the primary concern was non-compliance or when poor instructions were noted when observing parent/child interaction (count: 11).

The next module, Acute Stress and General Parenting, focused on helping parents learn ways to improve emotion-focused interactions and communication with their child (count: 4). In particular, the Acute Stress handout emphasized how to support a child through reflections, behavioral activation, and praise. The General Parenting handout is not considered a unique module but rather an adjunct handout to provide parents with broad parenting tips. Given that

this was used as an adjunct to the main module, this handout was not consistently noted in the patient chart. Thus, accurate count of administration is unavailable at this time.

Finally, the Sleep module was administered when patients presented for sleep concerns (count: 8). This module focused on teaching parents about sleep hygiene and planning a consistent sleep schedule. Additionally, the PMR section of mindfulness was used as an adjunct to this module, particularly when anxiety was reported at bedtime.

The modules included in the manual were intended to address most presenting concerns. Occasionally, however, there were specific situations in which a patient's need necessitated individualized brief intervention. First, some sessions emphasized care management and assessment feedback (count: 4). These sessions included face-to-face meetings to discuss assessment results and recommendations or care management tasks (i.e., helping parents understand assessments completed elsewhere, discussion of available resources in insurance network, etc). Additionally, the BHP conducted a few single session interventions that were evidence informed and tailored to the idiographic needs upon presentation to the clinic (count: 3). For example, one 5-year-old female was referred to the BHP for early masturbatory behavior. Given the rarity of this presenting problem, the BHP reviewed relevant literature to inform a brief intervention that emphasized teaching socially appropriate behavior (i.e., private vs. public behavior and frequency) and cleanliness (related to frequent UTIs).

Consultations and warm hand-offs. As indicated earlier, accurate count of consultation time was difficult to compute given the frequency and informal nature of most consultations. Estimated consultation time was approximately 50 hours over the entire 6 month period (total 509 hours worked). This estimate was largely informed by tracking longer consultations and is likely lower due to inaccurate tracking of brief (<5 minute) consultations. Thus, it is estimated

that consultations accounted for between 30 to 90 minutes per day. Additionally, warm handoffs were conducted for 12 unique patients with unequal distribution across PCPs (i.e, provider A-7, provider C-4, provider B-1, and provider D-0).

Support activities. The first major support activity was contacting patients for scheduling and follow ups. To aid in patient communication, the BHP was provided an in-office phone with voicemail. In general, contact attempts averaged 2.5 calls per patient, with Table 6 showing the number of contact attempts per patient by type (scheduling, follow-up, or consultation). In this table, scheduling refers to the number of contact attempts made to schedule the patient. Scheduling contact attempt count of "0" reflects situations in which PCP put the patient in the BHP schedule, referred via warm handoff, or a parent called in to schedule (count: 68). The majority of patients were scheduled in 2 or less phone calls (126 out of 141). Follow-up calls were made to provide feedback on assessments, check in and/or problem solve application of brief intervention, or support families in the referral process (follow-up for 122 out of 141 unique patients). Some families were not contacted via phone for follow-up (count: 19). The patients noted as no follow-up calls include weekly patients (count: 7), in person feedback (count: 2), patients who contacted the nurse/PCP directly (count: 6), and warm handoffs that were lost to follow-up (count: 4). Follow-ups did not always happen because some patients met with the BHP when at the clinic for a medical appointment. When this occurred, the meeting was not noted in the correct place to engender follow-up.

Resources provided to patients include all clinical handouts distributed as part of brief intervention. Additional handouts were written at the request of PCPs. These simple educational handouts were written to provide an overview of depression, behavior problems, anxiety disorders, suicidality, and ADHD (Appendix F-J). Providers requested brief handouts that could

be given to patients and families, particularly when the BHP was not immediately available. These were typically printed by the nurses upon request of the PCP, thus there was no tracking system implemented. Finally, although notes and chart review focus on clinical content, the process and organization of creating a shared note system will be discussed in the operational world section.

Expected short-term changes (column 4). Within program evaluation research, outcomes and impact generally depict what is expected to happen given continued program implementation. Given that many of these outcomes are broad in nature, they were analyzed indirectly when possible. Further, the primary goal of the current research project was development and refinement of integrated care processes with particular focus on creating an efficient and sustainable model. Thus, emphasis was placed on the first three columns with column 4 and 5 reflecting the broader ambitions of the integrated program to be directly tested in future projects.

Increased identification. To demonstrate increased identification of children and youth with emotional and behavioral needs, diagnoses data were extracted from the EMR system through billing records. Thus the diagnoses counts analyzed here reflect the different diagnoses attached to individual billing codes for the entire practice. Analyses evaluated change in mental health diagnoses over time including F-codes as well as relevant R- and Z-codes (See page 85 for list). Results indicated a significant difference in frequency of F-code diagnoses billed across baseline, pilot, and practicum time periods X^2 (2, n=122,781) = 84.001, $p < 0.01$ (see Table 7). When conducting a z-test comparing cross-tabulation column proportions, the practicum time period (1.6% of billed codes contained mental health code) was significantly different than the baseline and pilot (1.0% of billed codes; $p < 0.05$). Additionally, there was a significant

difference when looking at the frequency of any mental health codes (including F-, R-, and Z-codes), X^2 (2, n=122,781) = 334.311, $p < 0.01$ (see Table 8). Again, the z-test of proportions indicated a higher rate of mental health diagnoses during the practicum time period (practicum: 2.8%; pilot: 1.3%; and baseline 1.2%; $p < 0.05$). Though these data are indirect, the overall increase in mental health diagnoses billed by the office indicates an increase in general attentiveness to mental health needs. Given the improved assessment procedures, it is expected that diagnoses in the practicum period are also more accurate; however, data at this point are not specific enough to support this.

Utilization of clinical materials created. As mentioned previously, patients and families were provided clinical resources during any appointment with the BHP, which included handouts written as part of the manual. When considering other clinical resources such as information sheets, the exact utilization of handouts distributed by nurses and physicians is unknown. While the exact counts are difficult to estimate, there was an increase in availability of resources both for providers and families.

Increased parental skills. Another goal of the program was to increase parenting skills regarding emotional and behavioral difficulties. The behavioral parenting skills that were explicitly taught (i.e., instructions and rewards) are evidence-based elements of parent management training. Additionally, informal parental report of behavioral improvement suggested an increase in parenting skills. Finally, through the general parenting and acute stress modules, it is expected that parents increased skills relative to communicating effectively with children regarding emotional difficulties (i.e., use of reflections, praise, and labeling emotions to encourage development).

Decreased mental health symptoms. Clinical outcome tracking was adapted throughout implementation of the project to maximize clinical utility and efficiency. In the beginning, validated self-report measures were sent to families via qualtrics link. This process was discontinued due to low response rate despite multiple problem solving attempts. Next, the Top Problems assessment tool was implemented during follow-up phone calls to track symptom severity. This assessment tool requires parents to identify 3 problem areas and assign each one a severity rating (0-4 with 4 being the most severe; Weisz et al, 2011). One major limitation of this outcome tracker was difficulty making contact with families via phone (i.e., not answering the phone and leaving voicemail when available). Colloquially speaking, parents and physicians both preferred the use of qualitative descriptions of emotional/behavioral change compared to numeric, as is consistent with the conventional method of feedback in the medical environment.

Though the Top Problems assessment was administered to more people for baseline, only 16 people completed these questions at follow-up with 3 of those completing one additional follow up. All families provided 3 areas of concern except for two families who only noted 2 areas. Each problem rating decreased by 1.01 points on average at initial follow up (average 1.22 for those at the second follow up). Table 9 shows the total change across all problems reported for each individual. This demonstrates that 13 out of 16 families who completed the Top Problems assessment reported improvement in at least one area of difficulty with just over half of families (9 out of 16) reporting improvement in 2 or more areas.

Qualitative descriptions provided by parents were coded as *worse*, *no change*, *no change but beginning therapy/medication management*, or *improved/improving*. Of the 122 follow-up calls attempted, 94 parents answered or called back. No parents indicated worse emotional/behavioral symptoms following intervention or assessment. The majority of families

endorsed improvement (count: 53), while some families endorsed no changes (count: 23) and others reported no major changes but in the beginning stages of outpatient treatment (count: 18). It is relevant to note that some of the families who denied improvement in symptoms included parents who discontinued use of the reinforcement system after a couple of days, declined referral for outpatient therapy, or rejected medication for management of ADHD symptoms.

Minimizing contact attempts. As indicated previously, contact attempts were tracked with the goal of minimizing contact attempts per patient to improve communication efficiency. The average number of contact attempts needed to schedule decreased each month from July to October (see Table 10). In November and December, however, the average number of calls to schedule increased. This increase in contact attempts could be related to decreased availability during the holiday season. In terms of scheduling efficiency, improvements made to the referral system will be discussed more in the operational section.

Expected long-term changes (column 5). The final column of the logic model reflects expected changes given continued program implementation over time. Given the current trends, it is expected that greater mental health awareness and understanding for primary care providers in this clinic will be evident over time. Further, it is also expected that patients' and families' self-efficacy will continue to improve in relevant domains. The increase in patients and families independently seeking mental health services in house without PCP referral provides additional evidence for increased self-efficacy and diffusion of resource availability to the community (Counts: 0 in July and August, 1 in September, 3 in October, 1 in November, and 3 in December). Finally, patients at this clinic had more access to emotional/behavioral skills training than clinics without integrated mental health. Clinical outcome data demonstrated qualitative

improvement even following brief single session intervention, thus continued program implementation is expected to continue improving mental health.

Operational World

Resources needed for program (column 1). Attention to organizational factors was a crucial resource to building the operational infrastructure. Attending to these factors is conceptualized as an ongoing component of effective and efficient integration, which includes tracking systems variables and making adjustments when indicated. Establishing a shared system for patient charts, communication, and appointments was considered another important resource for this program. As described previously, the BHP was granted a unique login to the EMR system which created one shared system for charting, scheduling, and communication regarding patient care and referrals between PCPs and the BHP. Further, this shared scheduling system allowed PCPs to assess BHP availability for warm handoffs and/or consultations. It is relevant to note that the BHP scheduled each patient independently in the beginning. Integration into the EMR system allowed for PCPs, nurses, and front office staff to add patients directly into the BHP schedule. By fully integrating behavioral health into the medical record, scheduling, and billing system, this program advanced to the highest level of integrated care described by Heath and colleagues (2013; see page 6).

Components of program and evidence of implementation (column 2 and 3).

Schedule patients in shared system. Within this EMR system, BHP availability was added to the calendar as color coded time slots. Available time slots for the BHP were added manually by the office manager as fuschia appointments. Only the BHP was allowed to schedule appointments to the calendar at times not marked available. For example, on a few occasions, the BHP scheduled meetings with parents during lunch to accommodate families with limited

availability. This system allowed for efficient scheduling of most patients but still provided flexibility when needed. Further, appointments within the system were assigned an appointment type at the time of scheduling. Appointments with the BHP were labeled "PSYCH ADHD tools" for ADHD assessments and "PSYCH" for all other appointments. Another helpful feature of this scheduling system allowed the BHP to change the status of appointments to "psych in progress" and "psych finished." This was particularly useful during warm handoff situations in which the doctor or nurse wanted to see the patient again following a meeting with the BHP.

Office meetings. One explicit goal of the integrated program was to increase office meetings to improve coordination of care as well as solicit feedback from PCPs for program refinement and improvement. Throughout the 6 months, 4 office meetings were scheduled in addition to one-on-one meetings with the billing manager once a week for 6 weeks. The first meeting in July was conducted with the front office staff to introduce the program and answer questions. At the request of physicians, meetings for program feedback were scheduled with only two PCPs instead of the entire office. At the initial meeting, the office manager attended in addition to the two PCPs (end of August). A full staff meeting was scheduled for mid October to review suicide assessments and responses; however, this meeting was cancelled and not rescheduled due to illness and holiday travel. The final meeting was conducted at the end of November with two PCPs in attendance. While structured office meetings were infrequent, daily informal interactions and consultations included discussion of programmatic components and efficiency. For example, given the difficulty rescheduling the office meeting to discuss suicidality, each PCP was provided with a brief written handout and short verbal training.

The weekly meetings with the billing manager were helpful in development and refinement of the financial sustainability of the model. During the early stages of these meetings,

the billing manager explained the clinic's billing procedures, which included explanation of the Superbill structure and reimbursement procedures. The Superbill referred to the process of adding all CPT codes to one billing document (i.e., the Superbill) and submitting all accumulated codes bimonthly instead of individually or daily. Additionally, most insurance companies reimbursed via large, aggregated checks instead of paying for individually billed codes. Once reimbursements were processed through the bank, the billing manager finalized and recorded the payment in the EMR system. To get quicker information regarding reimbursement amounts and patient responsibilities, the BHP could use individual insurance company websites to check claim status when available. After learning the basic structure, the meetings transitioned to discussion of various billing challenges (i.e., rejection codes, variability of patient responsibility, and applicable modifiers). Finally, meetings with the billing manager helped establish a procedure within the EMR system to denote self-pay instead of billing insurance for brief weekly therapy sessions. These procedures included assigning a CPT code in the EMR system (CPT "10") that was distinctly different from other CPT codes (which are 5 characters long). When this code was set to be added to the Superbill, the system flagged it as incorrect before filing the claim with insurance. Once the system flagged this code, the billing manager manually changed the claim to self-pay for the patient and paired it with the payment at time of session.

Internal referral system. The internal referral system is flexible and tailored to individual provider preferences. Each provider generally had a preferred method of communicating prior to behavioral health integration. To encourage rapid adoption of the new program, the BHP adapted to each provider's method rather than trying to institute practice-wide uniformity. For example, provider A typically preferred to refer through the EMR messaging system, provider B preferred to put patients in the BHP schedule himself when parents brought up emotional/behavioral

concerns, and the other two providers primarily provided referrals via face-to-face conversations or sticky notes. Of the 153 referrals received, 144 patients were scheduled with 141 patients attending appointments. These referrals were unequally distributed across providers (see Table 11).

Wait times reflect the number of days between the day a physician provided a referral and the scheduled appointment date. When looking at these wait times, one outlier was noted (119 days). This patient in particular was contacted 4 times to schedule without answering before calling in later to schedule. When removing this outlier, patients referred for behavioral health waited 9.33 days on average (range: 0-49 days). Given this wide range, it is relevant to discuss the distribution of wait times. The majority of patients (count: 78) attended the appointment within one week of initial referral, with very few patients waiting 31 days or more (count: 6; see Table: 12).

Write notes in chart and MDs cosign notes. Given that the BHP for this project was a clinical psychologist in training, the MDs on site served as on site supervisors for clinical activities. Thus, for supervision and billing purposes, the PCP of each patient was responsible for reviewing and cosigning clinical notes written by the BHP (count: 171). Prior to BHP receiving a unique EMR login, notes were scanned into the patient chart under documents (count: 13). It is relevant to note that charting clinical notes in the EMR system followed a different format than writing traditional mental health notes (i.e., SOAP notes- Subjective, Objective, Assessment, Plan). The PCPs requested that the BHP complete the Chief Complaint (CC), History of Presenting Illness (HPI), Counseling, Assessment, and Plan sections in the Encounter note tab of the chart (which refers to any non- well visit appointments). This necessitated an adjustment in note writing style to integrate more smoothly into the current structure. Per PCPs request the CC

section included a 1-3 word description of the patient's presenting problem for quick reference. Further, HPI emphasized what circumstances brought them in for treatment, family history of mental illness, and other relevant developmental, social, or educational factors. The counseling section included descriptions of assessment or interventions completed in session. This would include results of semi-structured clinical interview and which brief intervention was administered. The Assessment and Plan section each align directly with traditional notes (i.e., A and P of SOAP).

Additionally, the BHP was responsible for adding the correct CPT codes for billing to the clinical note. In line with discussions with the billing manager, this helped establish an efficient system of billing to fund the position. After completing the note, the BHP sent a message through the patient's chart to the PCP prompting them to review, cosign, and finalize notes. Once the PCP finalized the note, it was locked from further edits and the CPT code was added to the clinic's Superbill (more details in financial section). Clinical follow-ups described previously were attached to notes as addendum and emphasized qualitative descriptions per PCP request. This was also in line with current practices conducted by the nurses when updating PCPs based on patient phone calls.

To evaluate efficiency, the number of days between the BHP completing the note and MD cosigning and finalizing the note was tracked. On average, notes were completely finalized in 5.03 days; however, this average is being impacted by two large outliers (121 and 96 days). With these outliers removed, the average number of days for note completion was 3.80. Table 13 shows how many notes were completed within certain time frames. Most notes were finalized within 48 hours (count: 114), and very few notes took longer than 30 days (count: 5).

Staff Satisfaction. Staff satisfaction was collected via qualitative feedback and a quantitative measure (Barriers and Facilitators Questionnaire). Both providers and nurses were recruited to complete the Barriers and Facilitators Questionnaire. When looking at facilitators, the integrated program scored highly as a facilitator for change (i.e., flexibility, compatibility, time-investment, and attractiveness). Care provider characteristics were also considered a facilitator to innovation. Data indicated that the providers rated themselves as open to change and their coworkers as cooperative. Additionally, they reported few doubts about the utility of the integrated program. All Barriers noted in this measure were related to implementation of preventative care. In particular, contextual factors were seen as the most prominent barrier (i.e., not enough support staff, lack of instruments, office hours, physical space, and patients with occasional/rare visits).

Additionally, office staff were asked informally for their feedback given their role in efficient implementation of the program. During this discussion, comments from office staff were overall positive. When prompted about areas of growth, the office staff indicated a desire to understand scheduling and insurance related to behavioral health better. A meeting was conducted with the front office at the beginning of program implementation; however, turnover and prolonged hiring procedures left the front office understaffed, which negatively impacted their involvement early on. While understaffed, the PCPs at the clinic requested that minimal responsibilities be added to the front office workload. Finally, the clinic has already agreed to continue hosting a practicum student next year, which demonstrates overall satisfaction in the program. Qualitatively, physicians have repeatedly stated that behavioral health has become so ingrained in their clinical practice that it is hard to imagine functioning without such services anymore.

Expected short-term changes (column 4).

Increased office meetings. Although the number of office meetings did increase, these still did not occur with regularity. The current office structure schedules meetings as needed rather than routinely. Though this was not how the project initially conceptualized office meetings, this process enabled PCPs and the BHP to quickly consult regarding patient care without waiting until a specified day. More research is needed to determine if there are benefits of routine meetings over as needed team meetings in terms of clinical utility and overall efficiency.

Office Satisfaction. As discussed earlier, the overall satisfaction of the office is high as evidenced by structured measures as well as qualitative reports regarding behavioral integration. Agreeing to continue taking a practicum student is strong practical evidence of satisfaction. This first year was intended as a trial period to determine the longevity of behavioral health integration. After only 4 months of integration, physicians began discussing the next practicum student and other future oriented topics.

Creation of referral system. As described earlier, the referral process was tailored to each provider. The original intent was to create a cohesive referral structure, however, the current practice organization centered around individual PCPs determining how to conduct their own patient care. Thus, flexibility and adaptability working with individual providers seemed more advantageous in facilitating innovation acceptance.

Increased referrals. The referral counts did not show an overall increase over the 6 months, with December having the lowest number of referrals. This is potentially due to the increase in holiday travel in late November and December both for physicians and patients. Unexpectedly, the first month had the highest number of referrals. It is possible that the large

number of referrals at the start of the program were due to the amount of unmet needs that had been building over time. The average number of referrals was 23.5, with substantial variability across PCPs (see Table 11).

Increased intra-office communication. The increase in messages with the EMR system as well as staff meetings demonstrate a slight increase in intra-office communication. The current data can only attest to increased communication regarding behavioral health needs through the few office meetings that were conducted; however, data are insufficient to speak to a general increase in communication amongst providers, nurses, and staff.

Decreased wait times and increased communication efficiency. It was predicted that referral wait times would improve over time as the integrated care model was adopted into routine care. Additionally, it was predicted that communication efficiency (as measured by contact attempts) would improve over time. Based on qualitative observations throughout program implementation, it was also predicted that scheduling processes would be related to efficiency in communication and scheduling. For this model, there were three types of scheduling process. The first involved the BHP calling to schedule the patient following a referral note from the PCP (Count: 89). The next process involved the patient being scheduled by a PCP, nurse, or direct parent request (Count: 40). The final process involved warm handoffs between a PCP and the BHP with the patient already on site (Count: 12).

Thus, a MANOVA was conducted to evaluate the relationship between scheduling process and month on wait times and contact attempts (See Table 14 and 15). There was a statistically significant difference in the overall model (i.e., wait times and contact attempts) based on scheduling process, $F(4, 248) = 11.94$, $p < 0.001$; Wilks $\Lambda = 0.70$. Further, univariate between subjects tests indicated a significant difference in both wait times $F(2,125)=5.65$,

$p<0.005$ and contact attempts $F(2,125)= 24.84$, $p<0.001$. There was not a significant relationship between month and contact attempts or wait times $F(10,248) = 0.680$, $p= 0.74$; Wilks □ = 0.95. Additionally, there was no significant interaction between month and scheduling process.

Tukey's HSD was conducted to further evaluate univariate differences among the three scheduling processes. Results indicated that the BHP contacting patients was significantly different from the other two processes (warm handoff and patient scheduled by others) for both contact attempts (both $p<0.001$) and wait times (warm handoff $p<0.01$ and other scheduled $p<0.05$). To further understand these differences, it is relevant to discuss the mean differences. When BHP scheduled patients, patients were contacted on average 1.76 more times than the other two scheduling processes. When scheduled via warm handoffs, patients waited on average 12.94 days less than if the BHP had scheduled. Additionally, patients scheduled by PCP, nurse, or parent initiated waited on average 6.59 days less than if the BHP had scheduled. When comparing warm handoffs and other scheduling, the mean difference (6.35 days) was not statistically significant potentially due to insufficient sample size of warm handoffs compared to the other two contact methods. Thus, warm-handoffs are still considered to have strong utility in terms of reducing wait times potentially even beyond that of the other scheduling method. This model indicates that scheduling process is more important in creating an efficient referral system than time since integration (i.e., linear improvement over the 6 month period). The results of this model could indicate the need for an adjustment to the current referral process to create a more unified approach to improve efficiency.

Expected long-term changes (column 5). Implementation of this integrated care model long term would seek continued improvements in efficiency, communication, and organization within the office. As described earlier, further refinement of the referral system based on the data

analyzed for this study could continue to improve wait times and reduce phone tag with patients for scheduling purposes. Additionally, this integrated care model will ideally further increase staff satisfaction long term. For instance, integration of behavioral health in-office reduces the burden on PCPs with regard to behavioral health assessment and referrals. Colloquially speaking, this reduced burden has been a factor that many of the providers have brought up throughout the study. Finally, the integrated care model should help establish a new standard of care. The providers all agreed that behavioral health integration has now become so embedded into their daily practice that it is hard to imagine what they did before or how they could do without.

Financial World.

Resources needed for program (column 1). The first fundamental resource related to the financial world is access to the patient billing system and history, which was provided through the EMR system. In order to monitor for the purposes of this study, a tracking system of billed codes and reimbursements was also needed (discussed later). Another major resource needed to implement this program was funding for an on-site BHP. As mentioned previously, the integrated BHP for this site was a graduate student working half-time (20 hours per week). Funding for this position was provided through an external practicum site stipend that amounted to $15,000. Thus, reimbursement related to integrated care activities needed to be approximately $7,500 per 6 months to fund this position. Billing reimbursement exceeded the amount needed in the first 6 months (Total payment received: $10,461.20; see Table 16). Details regarding reimbursement will be discussed in the following sections.

Components of program (column 2). In order to address the financial components of this program, the BHP was very involved with billing processes related to behavioral health

codes. Given this was a small clinic, there was only one person in charge of billing for the entire office. Thus, the BHP took on much of the work regarding researching billing codes, checking in with insurance companies, and monitoring reimbursement.

Explanation of relevant billing codes. It is relevant to describe the billing codes utilized in this project. This section will not be an overview of all care management CPT codes but instead focused only on the codes utilized here. When looking into billing for this integrated care project, the first two codes to be used were care management (99484) and screening (96127). Both of these codes can be billed for anyone working for an MD and are billed under the MD license. Within the insurance and billing structure, MDs are at the top of the hierarchy, which generally allows them to bill for a wide array of codes including mental health codes.

The care management code can be billed when a cumulative 20 minutes of time has been spent with a patient (face to face or via phone) for the application of general behavioral health integration. The care management code can only be billed once a month and not simultaneously with any other code, though the CPT description does not clearly explain this limitation. This was discovered through a trial and error process that included billing, monitoring, and contacting insurance companies repeatedly for information. The screening code can be billed for electronically delivered or in person behavioral health screening. It is relevant to note that this code was already in use prior to behavioral health integration. Thus, reimbursement for this code reflects the increase in billing following integration not entirely independent billing as with the other codes. Additionally, the two assessment codes utilized in this model were neuro/psych testing by technician (First 30 minutes: 96138 and each additional 30 minutes: 96139). The use of these testing codes included ADHD, emotional/behavioral, and learning assessments as described in the clinical section. Similar to the care management and screening billing codes,

these assessment codes were also billable under the MD licenses which would allow for a similar process in other integrated medical settings.

Tracking. Initially, the tracking system for billing codes was completed entirely through an excel document. During the pilot stage, the BHP worked with the billing manager to determine what information was relevant to include in this document. Once the BHP received a unique login to the EMR system, billing procedures became more efficient. The BHP would attach the appropriate code to the note in the patient chart which would automatically be added to the Superbill once the PCP finalized the note.

There were a couple of exceptions to this process. When a screener was administered remotely, the BHP updated the relevant information into the excel document. Periodically the billing manager reviewed and manually added those codes to the Superbill. Additionally, care management codes related to phone consultations were added to the Superbill manually by the billing manager following the BHP adding an addendum to the encounter note. These codes were added manually as there was no encounter note associated with screener administration or care management services provided via telephone. Encounter notes were reserved for patients receiving services in the office setting, and there was no option to add a billing code within an addendum.

Evidence of implementation (column 3).

Reimbursement amounts. Overall, insurance reimbursement is described in Table 16. Through this, we can see that the total amount paid is more than sufficient to cover the first $7,500 of the BHP funding (Total billed: $30,200.00; Total paid: $10,461.20). Given the familiarity and use of the screening code prior to integration, it is relevant to evaluate payment amounts from codes exclusively billed by BHP (i.e., without the screening code). This restricted

amount was still sufficient to cover the first 6 months funding for behavioral integration (Amount: $7,705.95). When looking at the reimbursement amounts by code, the assessment codes amount to 63.58% of the overall behavioral health income. This indicates that integrating assessment services could provide a more viable long term billing strategy than care management codes alone given that assessment codes are reimbursed more consistently and at a higher rate (72.73% of assessment codes were paid). Care management codes were rarely reimbursed by insurance (29.45% paid) with most companies citing "not covered service" as the denial reason. The actuarial judgement provided through the clinical assessments utilized in this study has long been demonstrated to be of higher clinical validity (Dawes, Faust, and Meehl; 1989), potentially making it a more worthwhile service endeavor for promoting overall health. This reimbursement pattern suggests that assessments not only contribute to the clinical world but also assist in creating a fiscally sustainable integrated care model.

It is also relevant to note that insurance reimbursement varied greatly across different insurances (see Table 17). For example, the care management code reimbursement ranged from $0 to the full $60 charged. The reimbursement tracking demonstrated that Medicaid and Magnolia (MS Medicaid) were the least likely claims to get paid (i.e., both companies only reimbursed screener codes and adjusted all other codes to zero, which prevented the patient from getting billed for services).

Patient responsibilities. In addition to tracking insurance reimbursement, the BHP also focused on tracking how much patients would be responsible to pay. As with reimbursement, patient responsibilities varied greatly by insurance provider. In general, BCBS paid 80% with 20% coinsurance for the assessment codes. There were a few exceptions to this even within BCBS however. For example, high deductible plans would not pay anything until the deductible

was met, which would leave patients responsible for the entire allowable amount. Detailed investigations into individual patient responsibilities were conducted prior to learning assessments due to the higher cost. Further, it is relevant to point out that patients owed a total of $3,630.33 for services billed, but payments received from patients at the time of data collection only amounted to $1,964.25. If patients were paid in full, the total income would have increased to $12,127.28, which would be approximately 80% of the total amount needed to fund a year long position.

Expected short-term changes (column 4).

Increased reimbursement. Overall, this program demonstrated financial sustainability in that the reimbursement amount exceeded the cost of a half-time BHP. Informally speaking, a couple of minor changes as discussed with the billing manager seemed to increase reimbursement. First, the application of assessment codes was very helpful in increasing reimbursement capabilities in that this allowed billing to better reflect time spent with patients for emotional/behavioral, ADHD, and learning assessments. Additionally, discussions with the billing manager led to greater understanding of acceptable diagnosis codes, which in this context included additional billing codes for patients with subclinical symptoms who were assessed (i.e., Z13: screening for emotional/behavioral symptoms; T74: abuse; Z71: child/parent difficulties; Z63: bereavement; R45: nervousness; R45.4: irritability and anger; R45.87: impulsivity; R45.86: emotional lability; R45.3: apathy; R45.89: other emotional state; R41.840: attention/concentration; and Z55.9: problems related to education and literacy).

To examine insurance reimbursement from the pilot phase through the first 6 months of practicum, a simple linear regression was conducted to predict total reimbursement amount received per month across time (as measured by months) since initiation of integrated care.

Results indicated a significant regression model ($F(1,13)=19.669$, $p< 0.01$) with an R^2 of 0.602. This indicates that time since initiation predicts approximately 60% of the variance in reimbursement across pilot and test phases (see Figure 2). It is relevant to note, however, that there was not a significant increase in amount received when examining only the practicum time period. This is potentially due to the variability in referrals and holidays at the latter end of the time period as discussed earlier.

Another method to track reimbursement efficiency is to evaluate the ratio of paid claims to billed claims each month (see table 18). In general, the ratios were improving each month from July until October; however, November dropped back down to just over 50%. In December, the ratio improved back up to 68% of claims filed getting paid. This general trend indicates that another variable may have been impacting the reimbursement in November. Upon further examination, it was noted that November had the highest percentage of patients on public health insurance plans (35% of patients seen that month compared to average 23%). Though July had the lowest ratio of public health insurance, the reimbursement ratio is likely lower due to the higher ratio of care management codes filed (approximately 55% of total claims billed in July).

Decreased cost to patients for assessments. Most BCBS plans reimbursed assessment codes at 80:20 coinsurance rates which resulted in a patient responsibility for ADHD assessments that was typically $17.60. For high deductible plans, the max out of pocket cost to the patient for 1 hour of testing was $88.00. When families were referred for more time intensive testing related to learning difficulties, the BHP contacted their insurance to get an estimate of patient cost. The typical allowable charge for these longer assessments was approximately $352.00. The majority of patients were on a coinsurance plan that reduced the direct patient

burden to $70.40. It is relevant to note that assessments through the integrated care program did not include a comprehensive assessment report, but rather an abbreviated report.

One way to evaluate the reduced cost to patients is to compare the cost of assessments at our clinic to the local norm. The average cost for assessments at the psychology department clinic on campus was used as the local norm comparison, given that the clinic typically provides services at lower costs compared to most clinics that bill insurance. The department clinic is self-pay and charges $500.00 for ADHD assessments and $800.00 for comprehensive evaluations and reports. When comparing costs of ADHD assessments, patients tested through the integrated care program paid approximately $412.00 less than they would at the department clinic. For learning assessments, patients paid $448.00 less through integrated care. Overall, the typical assessment cost for patients is much lower through this integrated model. It is relevant to note, however, that the department clinic cost includes a comprehensive psychological report that is not provided through the integrated care program. Thus, comprehensive testing could still represent a better option for more complex clinical concerns and presenting problems.

More efficient tracking system. Another ongoing goal of the program is to improve efficiency with reimbursement tracking. Informally speaking, this process has improved over time through access to the EMR system. This EMR system allows the user to run billing analyses for certain CPT codes within a specified date range. This allowed for much more efficient tracking of reimbursement compared to manually looking at each patient's chart and then inputting that data into a de-identified excel workbook.

Expected long-term changes (column 5). One major success of the current project is the creation of a sustainable model of funding for an integrated BHP. Additionally, it is relevant to note that the physicians at this clinic indicated that the BHP position was so clinically valuable,

that it would still be worth sustaining even without insurance reimbursement completely covering the costs. Additionally the BHP fostered a much better understanding of insurance billing procedures through numerous phone calls to insurance companies, conversations with the billing manager, and detailed review of CPT code manual. While this understanding led to improvements in billing during the course of this study, it is important to continue monitoring billing strategies and reimbursement. Insurance procedures and CPT codes change frequently, which necessitates considerable attention and monitoring by providers or the billing department to maintain up to date billing strategies.

Other thematic lessons.

Given the process based nature of this project, some lessons learned throughout were unexpected and thus more colloquial than the results described above. Though these thematic lessons are not actuarial, they could still be relevant to discussion and future directions and have been included for that purpose. First, the BHP on site noted many differences in language and communication styles in the medical environment compared to traditional outpatient mental health. These differences impacted everything from consultations with PCPs to wording in clinical notes. For example, presentation of emotional/behavioral self-report measures was adapted to say "positive for" or "negative for" in line with the presentation of medical testing results. When thinking about language during consultations, PCPs sometimes brought the BHP in to help interpret and explain comprehensive evaluation reports from external clinics that relied heavily on assessment jargon. Therefore, the BHP spent considerable time in the beginning asking for informal feedback from PCPs on clinical notes to ensure that they were clear, concise, and comprehensive.

Another major factor that was noted during integration was the difference among individual provider processes and preferences. In a traditional mental health outpatient clinic, most clinicians follow the same procedures for scheduling, even with individual variability during face-to-face patient contact. The medical clinic operated very differently in that each nurse that worked with a specific PCP noted how hard it was to cover another PCP due to such large differences in processes. Some providers were very organized and efficient while others were more laidback and less attentive to time. Given this variability in PCP preferences, many of the original ideas were adapted to individual providers instead of whole clinic procedures. Evidence of this is described above when discussing the referral system and requests to finalize notes.

Communication with non-physician staff was also a significant part of this project. This includes communication with nurses, the billing manager, the office manager, and other office staff. For example, nurses frequently offered to provide an overview of patient history to the BHP, which would often include nurse observations of patient and/or parent behavior that was not always in the chart. Other staff were crucial to figuring out efficiency of scheduling and in facilitating patient contact (i.e., taking messages). Although screening procedures were not solidified at the conclusion of data collection, the current structure for screening includes the front office staff as an integral part of getting routine screening accomplished.

Another factor that seemed very important to the success of this project was building collegiality with all staff. This is a factor that is not often discussed in health literature but a crucial component of innovation adoption (Rogers, 2003). As the newest person on staff, the BHP put forth effort to communicate frequently with providers, nurses, and office staff. In the beginning, this often focused exclusively on patient care and programmatic planning. Shortly

into implementation, this transitioned to include more personal interactions with clinic staff. For example, the BHP utilized downtime (i.e., time when not face to face with patients) to get to know other people in the clinic and engage in small talk. Further, the BHP attempted to minimize any interactions that could seem arrogant through requesting help politely and reducing the use of psychology jargon as much as possible. For example, on one occasion the BHP used the word "parsimonious" in a case conceptualization. When this word was used, the PCP stopped the BHP and joked about not understanding the meaning of that "fancy university" word. Colloquially speaking, this interaction showed that the PCP felt comfortable enough with BHP to admit not understanding a term as well as joke about it. Overall, this attention to collegiality seemed to help strengthen the relationships among members of the care team (i.e., PCPs, nurses, and BHP). After getting to know the BHP on a more personal level, multiple staff members even requested the BHP provide some recommendations regarding personal matters (i.e., recommendation for therapy for their children, behavioral parenting tips, and personal sleep health). Additionally, the BHP was always invited to office gatherings for holidays and special events. This level of collegiality was primarily achieved by putting attention into being a good human and coworker rather than only emphasizing good clinical work. Informally speaking, the BHP viewed this collegiality as a crucial component of the integrated care model.

CHAPTER IV: DISCUSSION

The current study utilized program evaluation tools to create, refine, and evaluate an integrated behavioral health model in rural pediatric primary care. Throughout the process, the logic model (page 110) remained central to conceptualization, implementation, and evaluation. The Three World View model of integrated care was used as the overarching organizational structure. Therefore, the discussion will also adhere to this general structural system.

Factors related to the Clinical World have been evaluated widely in the literature through the RCT studies described previously. These studies were used to provide an evidence base for appropriate, abbreviated clinical care. Though the current project did not conduct a controlled clinical trial, all clinical tools used were evidence informed. Data regarding single session interventions and evidence based practice elements were synthesized to create the modular based manual utilized for clinical care (Appendix K). Preliminary clinical data reported here demonstrate that this single session model was well received by physicians and families with most parents reporting improvements in emotional/behavioral concerns within the initial week. One of the most successful clinical components of this project was increasing the availability of psychological testing. Through this integrated care model, patients were able to receive ADHD testing and results very quickly. Further, the BHP could directly communicate with providers regarding initiating medication and managing side effects or additional behavioral concerns. Finally, physicians frequently informed the BHP that their clinical care had been enhanced through consultations. PCPs response to suicide risk assessment provides a good example of this. On one occasion, a child reported passive suicidal ideation (i.e., I wish I were dead and it would

be better if I were dead) to the PCP during a routine well visit. While the patient waited in the office, the PCP consulted with the BHP to ask if inpatient care would be warranted. The BHP recommended a warm handoff for further assessment and explained the difference in passive and active ideation particularly as it relates to inpatient referrals. Following this incident, routine procedures for suicide assessments were established with a warm handoff to the BHP for suicide risk assessment as the new go-to for PCPs. Given that the integrated position was only part time, the BHP also created a suicide risk assessment within the EMR system designed for quick use when the BHP was unavailable. Additionally, a corresponding handout for families that included a safety plan was written and provided to PCPs to structure communication with families in the BHP's absence.

The first conclusion related to the Operational World was the importance of flexibility and adaptability in the medical context. This included overall adaptation of language as well as personalizing referral, consultation, and note systems for each provider in the clinic. While this flexibility across providers is seen as a crucial factor in most ways, the results do indicate that a common referral system might be more efficient overall. The physicians who scheduled patients directly in the BHP calendar while face-to-face with families had a much lower wait time for patients compared to referrals that required contacting families via telephone (which often included leaving voicemails). Additionally, the original plan for full office meetings was adapted throughout due to difficulty aligning all 4 providers schedules for a single meeting. The site in this study preferred individual discussions with physicians as needed compared to scheduled sit down meetings with the entire office. Finally, this world also addressed access and contribution to the patient's chart. The BHP was provided with unique access to the EMR system, which allowed for scheduling, chart review, patient contacts, messaging with providers, input of notes,

as well as billing tracking. Integrating scheduling, charting, and billing allowed the current model to attain the highest level of integration described by Heath and colleagues (2013). It is relevant to note that this level of integration through EMR access was delayed due to the increased cost of adding a provider. Adjustments were made during the pilot stage of the program to demonstrate utility and flexibility without this structure in place. Once the position was expanded, however, the providers then elected to provide unique access to the EMR regardless of cost due to the increase in efficiency it would provide. This advancement might not have happened if this added cost was presented as an up-front requirement for integration before the physicians had seen the value first hand. Physicians in this study were initially hesitant to take on the potential cost of adding a BHP to their clinical team; however, the piloting process allowed them to see the benefits and value of this type of program. This initial hesitancy with adopting innovations is consistent with diffusion literature (Rogers, 2003).

The Financial World was a crucial component of the current study as fiscal sustainability is centrally important to maintaining services at the site described as well as implementing a similar model at other primary care sites. Overall, financial data support this as a sustainable model for one half-time position staffed by a psychologist in training. Given the training status of the psychologist in this study, codes were restricted to technician administered CPT codes. Thus, a fully licensed psychologist integrating in a similar environment would have access to more billing codes and thus a potentially larger reimbursement sum. The care management code, designed for integrated health models, was reimbursed rarely and typically at a low rate. If this code gets added to the covered services for various public and private insurance plans, this would also increase funding. This finding is consistent with economic evaluations of integrated care (Wright et al., 2016). This research also contributes to the larger economic evaluations as it was

a model that was initiated and maintained by one BHP rather than a team, which may be more feasible for smaller, rural clinics. Finally, the current model also demonstrated reduced financial burden for families needing assessments. The financial results presented in this study would be relevant to include when meeting with other clinics to discuss potential integration given the prevalence of financial concerns when beginning a new program.

Another output of the current project was the development of an evidence informed modular based single session intervention manual. This manual includes brief session planning guides for BHPs as well as patient/family handouts for each module. Clinical care provided in the integrated primary care context is more fast-paced than traditional outpatient mental health centers. Thus, a clinical resource like this manual provides valuable guidance for adapting evidence based care in this fast-paced environment.

Finally, this study was conducted in a rural pediatric clinic by one individual serving as primary researcher and BHP on site. The project emphasized practical application in real world settings throughout development and implementation (as guided by the logic model). Though this emphasis may have sacrificed some attention to strictly controlling variables, the study was designed to determine what one BHP could reasonably achieve without the support of a full research team since most clinics will not have that level of support. Thus, the results are very promising for the clinical, operational, and financial success of implementing this program in other rural pediatric clinics.

As discussed earlier, many children experience emotional and/or behavioral difficulties without access to adequate mental health care. This is especially true in the state of Mississippi, which has a limited mental health workforce. Integrated care models present an effective solution to this problem with access to care. The current study demonstrates that even new integrated care

programs can be financially sustainable as well as clinically useful. This is an important contribution to the literature as it will hopefully encourage other practices to look into initiating integrated behavioral health programs. Given the expansive base of evidentiary clinical interventions, all children and families should have access to quality mental health care. The current study presents integrated care as the potential vessel to disseminating these treatments and reducing access to care limitations.

Limitations and Future Directions.

One limitation of the current study is that the BHP employed was a student in a local Ph.D. program. While this helped reduce cost and allowed for part-time funding, many areas do not have easy access to graduate students. Thus, future research would need to evaluate this model with a Master's-level clinician or higher integrating into a rural primary care facility, with particular emphasis on billing differences. Given the increase in available billing codes for a licensed mental health practitioner, it is predicted that funding would increase enough to sustain a full-time licensed practitioner. An additional financial limitation of the current study is that some resources were provided for free. For instance, a faculty member of the university volunteered his time free of charge to supervise the practicum student serving as BHP. Additionally, clinical assessment tools were loaned free of charge (i.e., continuous performance test for ADHD and IQ/ achievement testing materials). Thus, transferring this model to another clinic would require attending to these unknown costs. One potential solution to reducing the cost of assessment tools on individual clinics is to create a system in which local pediatric offices go in together to purchase materials and then allow these resources to rotate between clinics.

The current study is also limited in longitudinal clinical data. The clinical outcome data presented were adjusted throughout the process to more closely match the qualitative nature of feedback primarily used in the medical environment. While this helped with blending into the clinical environment, it lacked in terms of scientific rigor. Thus, future studies would benefit from more stringent clinical outcome assessments of the modular based manual created for this project. In particular, continued research in this clinic could evaluate adherence to skills taught through brief intervention as well as longitudinal measurement to determine level of improvement and stability across time. Additionally, the current project did not have a control group as the focus was on program development. In order to further test the program's clinical components, it would be useful to randomly assign patients to receive integrated services compared to traditional outpatient referral systems.

Additionally, there were some limitations with the internal and external referral processes. The internal referral process relied heavily on the BHP reaching out to patients repeatedly to schedule, which was demonstrated to be the least efficient method of scheduling. Thus, future directions in this area would involve encouraging physicians to schedule patients with the BHP during the medical appointment or consider a warm handoff to reduce the phone tag and wait time. One limitation of the external referral process was limited follow up data from families. Though follow up phone calls were attempted, many families did not answer or call back. Additionally, many families traveled 1-2 hours for medical care at this clinic, which often limited the number of close referrals that could be provided to families needing outpatient care. Thus, future models in rural areas could look to extend the services offered in-house to include higher caseload of brief weekly therapy clients and/or implementation of teletherapy services for families who have difficulty accessing care due to travel limitations.

Finally, the development of a formal level of care system could be warranted. A structured tier system like this could be accomplished many ways. Based on colloquial observation at this site, one potential model could include employing multiple behavioral health practitioners who serve different roles within the clinic. One practitioner could primarily provide screening and brief targeted interventions, and another provider could focus on assessments and weekly interventions with patients identified through screening. Both providers could assist with warm handoffs as needed. Further, through employing a licensed clinical psychologist as one of the providers, the second provider could be a psychologist in training (i.e., doctoral practicum student, intern, or post-doc). A model like this would expand the available billing codes through a licensed psychologist as well as allow for greater service delivery and efficiency. Future research could research the implementation of a level of care model in improving efficiency, clinical service delivery, and funding compared to integrated models without triage systems. Tyler and colleagues (2017) suggest leveraging a level of care system to increase funding opportunities. They described a 4-level model of provider responsibility for service provision between PCP and specialty systems based on severity of mental health needs. In this model, Level 0 and 1 rely primarily on the PCP for care with the specialty system serving a consultative role. At Level 2, they recommend a shared responsibility between the PCP and specialty system. Finally, Level 3 relies primarily on the specialty services with PCP moving to a consultative role. Utilizing this model of care, integrated models would be able to serve any patients on Level 0-2 with external referrals indicated at Level 3. Although more research is needed to develop standardized assessment tools to determine care level, this area of prediction research is particularly amenable to the applied context examined in the current study.

As discussed throughout this paper, financial sustainability was a crucial factor in gathering physician support for this model. Thus, future research could further investigate funding models for integrated care programs. The current study demonstrated that public health insurance (i.e., Medicaid, Magnolia Health Plan, Chips, etc) was reimbursed rarely and at a lower rate compared to private health insurance plans. To further advance behavioral health integration, future research could begin by advocating for Medicaid reform at the state level. Some states are implementing systems using Managed Care Contracts (MCC) and Accountable Care Organizations (ACO). These contracting systems allow states to define specific billing strategies such as same day billing for medical and behavioral codes, new codes specifically for primary care integration, and removing policies that do not support integration (Tyler, Hulkower, and Kaminski; 2017).

It is also relevant to note that the integrated care program is still ongoing at this site. Since data collection ended, the program has continued to improve particularly with screening procedures. As described earlier, one limitation to enhanced screening implementation was the lack of a full office staff. Once the office was fully staffed, the PCPs gave clearance for the BHP to involve them in the screening procedures. The clinic ordered two tablets to administer screening tools even without the BHP present on-site. The BHP is currently working to establish the most efficient procedures for communication with office staff regarding who needs to be screened and how to get that information to the physicians, which should translate into a much higher percentage of patients being screened in the future.

In addition to further research projects, the current study aimed to create a model for integrating that could assist clinical practice through this complex process. Much of the focus of this study was on practical variables and challenges that real-life practices might face when

initiating an integrated care program. Ideally, the current project can be used as a foundation in creating a road map for initiating an integrated care program in rural pediatric primary care. Thus, future clinical projects related to this would emphasize the dissemination of the process outlined here as well as the clinical materials created.

Table 1: Ages

Age	Count
5 and younger	24
6	18
7	19
8	24
9	29
10	7
11	8
12	6
13	18
14	11
15	6
16	6
17	5
18+	2

Table 2: Race

Race	Count
Asian	1
Black	27
Hispanic	1
Other	4
White	150

Table 3: Assessment Counts

Assessment Type	Count
ADHD	49
Emotional/Behavioral	17
Learning	3

Table 4: Diagnoses Counts

Diagnosis	Count
Major Depressive Disorder (all types)	5
Social Phobia	8
ADHD (all types combined)	23
PTSD	3
OCD	3
Specific phobia: emetophobia	2
GAD	6
Separation anxiety	5
Agoraphobia with or without panic	2
Unspecified Anxiety	6
Acute Stress Reaction	1
Adjustment Disorder (all)	12
ODD	6
Insomnia	1
Developmental Disorders (ID, Autism, Social pragmatic communication)	5

Unspecified bx disorder	10
Other childhood emotional disorder	2
Postpartum Depression	1
R codes (i.e., nervousness, irritability/anger)	3
Learning disorders	1
Z codes (i.e., screening and problems related to education, insufficient sleep hygiene)	15
Multiple Diagnoses:	
MDD and GAD	3
MDD and Social Phobia	2
Dysthymia and ADHD	1
ADHD and Situational Phobia	1
ADHD and ODD	4
ADHD and adjustment	1
ADHD and Math Disorder	1
GAD and ADHD	2
GAD and Eating Disorder	1
OCD, GAD, MDD, and Panic	1
PTSD and MDD	1
PTSD and Panic	1
Transient Tic and Social Phobia	1
Feeding Disorder and Anxiety unsp	1
Enuresis and Anxiety unsp	1
ODD and Social Phobia	1

Table 5: Brief Intervention Counts

Intervention Type	Count
Emotional Psychoed	14
Mindfulness	23
Problem Solving	6
Behavioral Activation	6
Exposure	7

Rewards	18
Instructions	11
Acute Stress/General Parenting	4
Sleep	8
Care management/ Feedback	4
Other (i.e., one-on-one time, behavioral contract, and early masturbatory behavior)	3

Table 6: Contact Attempts per Patient

Contact Attempts	Scheduling	Follow up	Consultation
0	68	19	-
1	33	73	4
2	25	35	3
3	8	7	0
4+	7	7	2

Table 7: Chi Square Results

Crosstabulation of F code by Time period

	Time Period			
F-Code	Baseline	Pilot	Practicum Site	x^2
Present (proportion)	469 (1.0%)	424 (1.0%)	530 (1.6%*)	84.001 ***
Absent	47416	41835	32107	

* = $p \leq .05$ *** = $p \leq .001$

Table 8: Chi Square Results

Crosstabulation of Any Mental Health Code by Time period

	Time Period			
F-Code	Baseline	Pilot	Practicum Site	x^2
Present (proportion)	594 (1.2%)	568 (1.3%)	917 (2.8%*)	334.311 ***
Absent	47291	41691	31720	

* = $p \leq .05$ *** = $p \leq .001$

Table 9: Top Problems

Score Change	**Count**
0	3
1	3
2	1
3	3
4	4
5+	2

Table 10: Scheduling Calls by Month

Month	Scheduling Calls	Patient count	Average Scheduling
July	39	27	1.44
August	24	21	1.14
September	15	27	0.56
October	8	22	0.36

November	16	22	0.73
December	33	17	1.94

Table 11: Referral Counts by Month and Provider

PCP	July	August	September	October	November	December	Totals
A	6	10	7	5	5	10	43
B	9	9	10	10	7	3	48
C	9	3	9	5	7	3	36
D	4	0	1	3	3	3	14
TOTAL	28	22	27	23	22	19	141

Table 12: Referral Wait times

Days	Count
0-7 days	78
8-14 days	33
15-30 days	24
31+	6

Table 13: Days Until Notes Finalized

Days	Count
0-2	114
3-7	30
8-14	13
15-30	8
30+	5

Table 14: Descriptive Statistics for MANOVA

	Process	Month	Mean	Std. Deviation	N
Wait	BHP contacted	July	14.55	24.32	22
		August	14.23	13.80	13
		September	6.20	4.59	15
		October	9.90	5.20	10
		November	12.73	7.11	15
		December	18.86	8.16	14
		Total	12.94	14.36	89
	Put in schedule	July	5.80	4.02	5
		August	1.25	1.26	4
		September	4.29	3.50	7
		October	7.25	9.55	12
		November	7.57	5.09	7
		December	10.00	6.20	5
		Total	6.35	6.56	40
	Warm handoff	July	.00	.00	1
		August	.00	.00	5
		September	.00	.00	5
		October	.00	.00	1
		Total	.00	.00	12
	Total	July	12.46	21.90	28
		August	8.64	12.51	22
		September	4.56	4.44	27
		October	8.09	7.84	23
		November	11.09	6.87	22
		December	16.53	8.53	19
		Total	9.97	12.63	141
Contact	BHP contacted	July	3.45	1.84	22
		August	3.23	1.30	13
		September	2.67	1.11	15
		October	2.80	0.92	10
		November	2.33	1.05	15
		December	3.36	1.45	14
		Total	3.01	1.41	89

Put in schedule	July	1.00	0.00	5
	August	2.25	1.89	4
	September	1.00	1.00	7
	October	1.17	0.58	12
	November	1.71	1.25	7
	December	0.60	0.55	5
	Total	1.25	1.01	40
Warm handoff	July	1.00	0.00	1
	August	1.00	1.00	5
	September	1.40	1.14	5
	October	2.00	0.00	1
	Total	1.25	0.97	12
Total	July	2.93	1.92	28
	August	2.55	1.60	22
	September	2.00	1.30	27
	October	1.91	1.08	23
	November	2.14	1.13	22
	December	2.63	1.77	19
	Total	2.36	1.53	141

Table 15: MANOVA Referral process x Contact attempt x Month

Source	DV	*SS*	*df*	MS	F	*p*
Corrected Model	Wait	4069.23 [a]	15	271.28	1.86	.034
	Contact	127.07 [b]	15	8.47	5.31	.000
Intercept	Wait	2312.56	1	2312.56	15.82	.000
	Contact	178.15	1	178.15	111.63	.000
Process	Wait	1650.57	2	825.29	5.65	.004
	Contact	79.28	2	39.64	24.84	.000
Month	Wait	610.79	5	122.16	0.84	.527
	Contact	2.93	5	0.59	0.37	.871
Process* Month	Wait	420.91	8	52.61	0.36	.940
	Contact	17.26	8	2.16	1.35	.224
Error	Wait	18272.65	125	146.18		
	Contact	199.49	125	1.60		

a. R Squared = .182 (Adjusted R Squared = .084)
b. R Squared = .389 (Adjusted R Squared = .316

Table 16: Insurance reimbursement by code

Billing code	Claim count (count paid by insurance)	Total billed	Insurance payment	Patient owed (paid)	Total received
99484	44 (13)	$2,640.00	$527.08	$92.80 ($52.80)	$579.88
96138	110 (80)	$5,510.00	$2,301.12	$1,018.60 ($500.70)	$2,801.82
96139	110 (74)	$6,750.00	$3,187.72	$1,444.75 ($661.53)	$3,849.25
10 (weekly)	21 (19 self-pay)	$525.00	--	$525.00 ($475.00)	$475.00
96127	984 (457)	$14,775.00	$2,481.03	$549.18 ($274.22)	$2,755.25
Total	1,269 (643)	$30,200.00	$8,496.95	$3,630.33 ($1,964.25)	$10,461.20

Table 17: Reimbursement/ Patent responsibility by insurance and code

Insurance	Code	Insurance reimbursement	Patient responsibility
Aetna	99484	$60.00	$0.00
	96138	$20.00-$42.50	$15.00-$50.00
	96139	$35.00-$45.00	$0.00-$6.75
	96127	$9.00	$0.00
BCBS-AHS	99484	$0.00	$0.00
	96138	$35.20	$8.80
	96139	$35.20	$8.80
	96127	$0.00-$4.80	$0.00

BCBS	99484	$0.00- $48.00	$0.00- $48.00
	96138	$30.80-$44.00	$0.00-$44.00
	96139	$0.00-$44.00 (typical: $35.20)	$0.00-$44.00 (typical $8.80)
	96127	$0.00-$6.00	$0.00-$6.00
Medicaid	99484	$0.00	$0.00
	96138	$0.00	$0.00
	96139	$0.00	$0.00
	96127	$3.87	$0.00
Chips	99484	$39.94	$0.00
	96138	$30.12	$0.00
	96139	$30.12	$0.00
	96127	$4.62	$0.00
Magnolia	99484	$0.00	$0.00
	96138	$0.00	$0.00
	96139	$0.00	$0.00
	96127	$4.91*	$0.00
UHC	99484	$24.00	$0.00
	96138	$20.00	$0.00
	96139	$18.00	$0.00
	96127	$3.48-$4.91	$0.00
Cigna	99484	$0.00	$0.00
	96138	$12.50-$26.00	$6.50-$20.00
	96139	$19.25-$23.40	$10.00
	96127	$6.06	$0.00
Molina	99484	$0.00	$0.00
	96138	--	--
	96139	--	--
	96127	$4.07	$0.00
Humana	99484	--	--
	96138	$26.94	$0.00
	96139	$26.94	$0.00
	96127	$3.62- $13.50	$0.00
Choice UHC	99484	--	--
	96138	$25.00	$25.00
	96139	$45.00	$0.00
	96127	$0.00	$7.46
Molina Chip	99484	--	--

	96138	$0.00	$50.00
	96139	$0.00	$45.00
	96127	$4.07	$0.00
UMR	99484	--	--
	96138	$45.00	$5.00
	96139	$40.50	$4.50
	96127	$7.46	$0.00

*bundled with other codes

Table 18: Ratio of claims billed/paid by month

Month	Billed	Paid	Ratio	% Public Insurance
July	38	21	0.55	11%
August	44	27	0.61	29%
September	57	39	0.68	17%
October	54	37	0.69	14%
November	50	27	0.54	35%
December	40	27	0.68	18%

Figure 1: Logic Model

Integrated Program: Clinical World

Factors/ Inputs	**Activities**	**Outputs**	**Outcomes**	**Impact**
Behavioral health provider on site	Administer screeners: -at risk patients	Screener (count) *Sent: 357* *Completed: 208*	Decreased mental health symptoms (assessed by follow up results)	Improved overall health and quality of life for patients
Room for conducting clinical activities	Conduct assessments (ADHD, emotional, Learning, etc.)	Assessments completed (count by type) *Completed total: 69 (see Table 3)*	Increased identification of accurate diagnosis (*See Table 7 and 8*)	Increased awareness of mental health issues for providers and staff
Contact information for patients	Conduct brief intervention sessions	Brief interventions provided (count overall and by type) *Total Brief: 104* *Total weekly: 22* *(see Table 5)*	Increased skills for kids and parents (treatment type by follow up)	Increased self-efficacy for parents
Wifi and printing access	Review patient chart for relevant history	Contact attempts for referrals (ratio) *Average: 2.50 calls/patient*	Clinical manual designed for rural integrated care *Appendix K*	Improved provider understanding of mental health issues
Consultation time/ system with physicians	Input notes directly into medical chart	Consultation time (in hours) *Approximate hours: 50 hours out of 509 (9.8% of time)*	Minimize the ratio of contact attempts for each patient	
	Consult with PCP regarding results/ intervention	Diagnoses assigned (count by diagnosis) *See Table 4*		
	Provide resources and handouts to PCPs	Completed follow ups (count) *Completed: 122/141*		
	Clinical follow ups via email/phone			

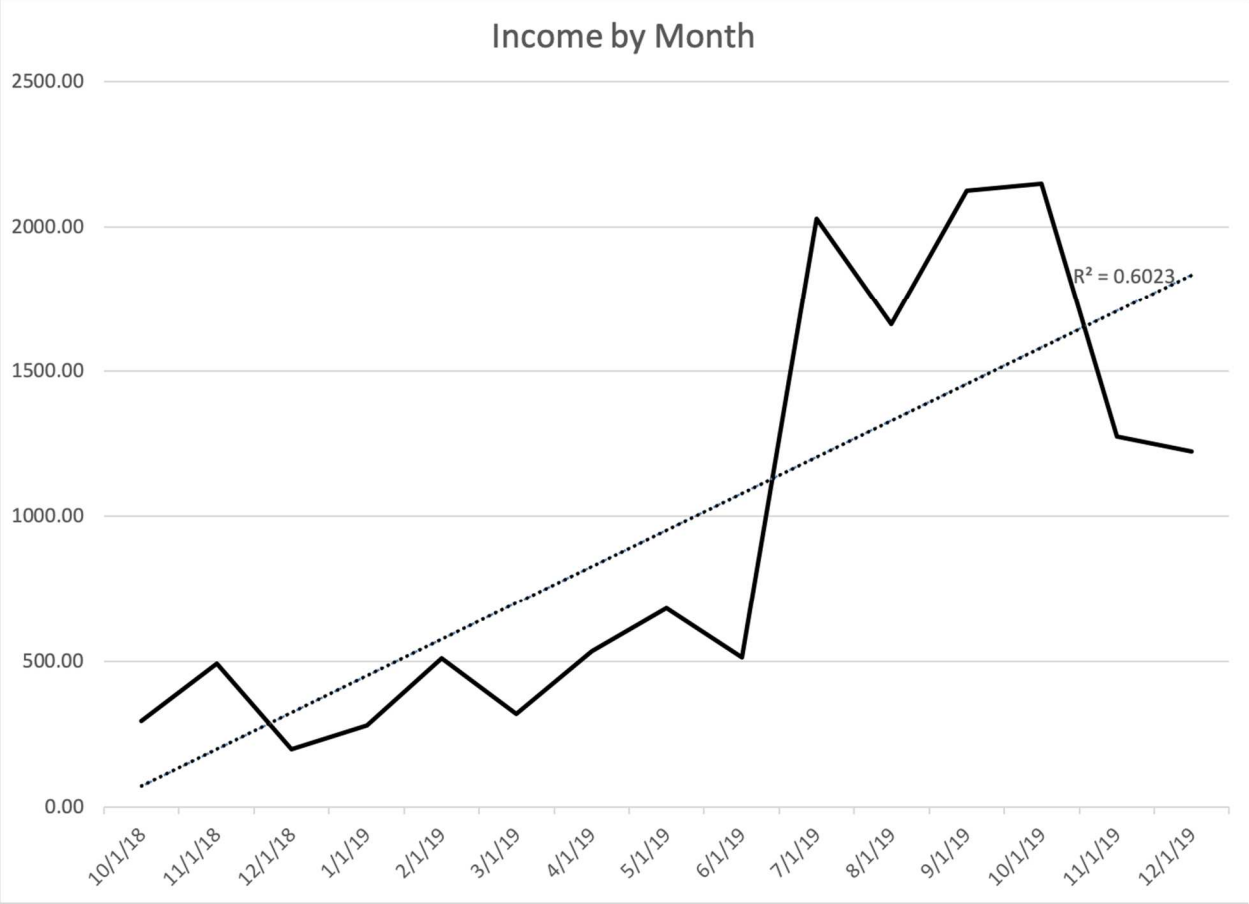
Integrated Program: Operational World

Factors/ Inputs	Activities	Outputs	Outcomes	Impact
Attention to Organizational factors (i.e., time, space availability, clinic flow, and leadership support)	Schedule patients in shared system	Number of office meetings conducted (count) *Completed: 3 (1 cancelled)*	Increased office meetings	Increased efficiency
Shared system for accessing and contributing to patient chards	Coordinate office meetings to discuss progress and process factors	Attendance at office meetings (count) *Count per meeting: 4,2,2*	Improved office satisfaction	Improved staff satisfaction with organization
Internal referral/ communication system	Utilize and monitor internal referral system	Staff satisfaction (Barriers/Facilitators) *See discussion*	Increased inter-office communication and collaboration	Pioneering a new standard for rural health care
Scheduling system for BHP appointments	Get staff feedback	Number of days before notes are finalized (count and average per MD) *Mean: 5.03; Range: 0-121 see Table 13*	Increased in internal referrals for mental health	Increase facilitation of communication
	MDs cosign and finalize notes in OP	Number of notes in EMR *Count: 171; Scanned: 13*	System for collaboration/ communication between BHP and PCP (i.e. warm handoffs, team meetings, etc.)	
		Wait time between referral and appointment (days) *Mean: 10.12; Range: 0-119 see Table 12*	Decreased wait time for patients (referral wait time compared to usual waitlist)	
		Referrals (count received, scheduled, and attended) *Received: 153 Scheduled: 144 Attended: 141*		

Integrated Program: Financial World

Factors/ Inputs	Activities	Outputs	Outcomes	Impact
Access to billing history and data	Assist with insurance billing (adding codes to superbill in chart)	Reimbursement (amount by code) *See Table 16*	Increased insurance reimbursement from pilot (claim/billing history)	Sustainable funding for BHP
Tracking system for patient factors (i.e. volume, no show rates, wait time)	96127 for screener 99484 for care management 96138 for assessment +96139 (add 30 min)	Claims paid by insurance (amount) *See Table 17*	Decreased cost of assessments for patients (compared to local prices)	Decrease in overall costs for patients receiving early intervention
Funding for part time BHP	Track insurance reimbursement and claim status	Patient responsibility (by code and insurance) *See Table 17*	Reimbursement covers or exceeds cost of BHP	Promote greater efficiency and understanding with integrated billing
			Insurance tracking data (i.e. billing and reimbursement)	

Figure 2: Income by Month Graph



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LIST OF APPENDICES

Appendix A: Vanderbilt Assessment Scales- Parent Informant

Directions: Each rating should be considered in the context of what is appropriate for the age of your child. When completing this form, please think about your child's behaviors in the past 6 months.
Is this evaluation based on a time when the child □ was on medication □ was not on medication □ not sure?

Symptoms	Never	Occasionally	Often	Very Often
1. Does not pay attention to details or makes careless mistakes □with, for example, homework	0	1	2	3
2. Has difficulty keeping attention to what needs to be done □	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through when given directions and fails to finish activities (not due to refusal or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or does not want to start tasks that require ongoing mental effort □	0	1	2	3
7. Loses things necessary for tasks or activities (toys, assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by noises or other stimuli	0	1	2	3
9. Is forgetful in daily activities □	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat when remaining seated is expected □	0	1	2	3
12. Runs about or climbs too much when remaining seated is expected □	0	1	2	3
13. Has difficulty playing or beginning quiet play activities □	0	1	2	3
14. Is "on the go" or often acts as if "driven by a motor" □	0	1	2	3
15. Talks too much	0	1	2	3
16. Blurts out answers before questions have been completed □	0	1	2	3
17. Has difficulty waiting his or her turn □	0	1	2	3
18. Interrupts or intrudes in on others' conversations and/or activities □	0	1	2	3
19. Argues with adults □	0	1	2	3
20. Loses temper	0	1	2	3
21. Actively defies or refuses to go along with adults' requests or rules □	0	1	2	3

22. Deliberately annoys people □	0	1	2	3
23. Blames others for his or her mistakes or misbehaviors □	0	1	2	3
24. Is touchy or easily annoyed by others □	0	1	2	3
25. Is angry or resentful □	0	1	2	3
26. Is spiteful and wants to get even □	0	1	2	3
27. Bullies, threatens, or intimidates others □	0	1	2	3
28. Starts physical fights □	0	1	2	3
29. Lies to get out of trouble or to avoid obligations (ie, "cons" others) □	0	1	2	3
30. Is truant from school (skips school) without permission □	0	1	2	3
31. Is physically cruel to people □	0	1	2	3
32. Has stolen things that have value □	0	1	2	3
33. Deliberately destroys others' property	0	1	2	3
34. Has used a weapon that can cause serious harm (bat, knife, brick, gun)	0	1	2	3
35. Is physically cruel to animals	0	1	2	3
36. Has deliberately set fires to cause damage	0	1	2	3
37. Has broken into someone else's home, business, or car	0	1	2	3
38. Has stayed out at night without permission	0	1	2	3
39. Has run away from home overnight	0	1	2	3
40. Has forced someone into sexual activity	0	1	2	3
41. Is fearful, anxious, or worried	0	1	2	3
42. Is afraid to try new things for fear of making mistakes	0	1	2	3
43. Feels worthless or inferior	0	1	2	3
44. Blames self for problems, feels guilty	0	1	2	3
45. Feels lonely, unwanted, or unloved; complains that "no one loves him or her"	0	1	2	3
46. Is sad, unhappy, or depressed	0	1	2	3
47. Is self-conscious or easily embarrassed	0	1	2	3

Performance	**Excellent**	**Above Average**	**Average**	**Somewhat of a Problem**	**Problematic**
48. Overall school performance	1	2	3	4	5
49. Reading	1	2	3	4	5
50. Writing	1	2	3	4	5

51. Mathematics	1	2	3	4	5
52. Relationship with parents	1	2	3	4	5
53. Relationship with siblings	1	2	3	4	5
54. Relationship with peers	1	2	3	4	5
55. Participation in organized activities (i.e. teams)	1	2	3	4	5

Appendix B: Vanderbilt Assessment Scales- Teacher Informant

Directions: Each rating should be considered in the context of what is appropriate for the age of the child you are rating and should reflect that child's behavior since the beginning of the school year. Please indicate the number of weeks or months you have been able to evaluate the behaviors: _____.

Is this evaluation based on a time when the child □ was on medication □ was not on medication □ not sure?

Symptoms	Never	Occasionally	Often	Very Often
1. Fails to give attention to details or makes careless mistakes in schoolwork □	0	1	2	3
2. Has difficulty sustaining attention to tasks or activities	0	1	2	3
3. Does not seem to listen when spoken to directly □	0	1	2	3
4. Does not follow through on instructions and fails to finish schoolwork 0 (not due to oppositional behavior or failure to understand) □	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or is reluctant to engage in tasks that require sustained 0 mental effort □	0	1	2	3
7. Loses things necessary for tasks or activities (school assignments, 0 pencils, or books) □	0	1	2	3
8. Is easily distracted by extraneous stimuli □	0	1	2	3
9. Is forgetful in daily activities □	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat in classroom or in other situations in which remaining 0 seated is expected □	0	1	2	3
12. Runs about or climbs excessively in situations in which remaining 0 seated is expected □	0	1	2	3
13. Has difficulty playing or engaging in leisure activities quietly	0	1	2	3
14. Is "on the go" or often acts as if "driven by a motor"	0	1	2	3
15. Talks excessively □	0	1	2	3
16. Blurts out answers before questions have been completed □	0	1	2	3
17. Has difficulty waiting in line □	0	1	2	3

18. Interrupts or intrudes on others (eg, butts into conversations/games) □	0	1	2	3
19. Loses temper	0	1	2	3
20. Actively defies or refuses to comply with adult's requests or rules □	0	1	2	3
21. Is angry or resentful □	0	1	2	3
22. Is spiteful and vindictive □	0	1	2	3
23. Bullies, threatens, or intimidates others □	0	1	2	3
24. Initiates physical fights □	0	1	2	3
25. Lies to obtain goods for favors or to avoid obligations (eg, "cons" others) □	0	1	2	3
26. Is physically cruel to people □	0	1	2	3
27. Has stolen items of nontrivial value □	0	1	2	3
28. Deliberately destroys others' property □	0	1	2	3
29. Is fearful, anxious, or worried □	0	1	2	3
30. Is self-conscious or easily embarrassed □	0	1	2	3
31. Is afraid to try new things for fear of making mistakes □	0	1	2	3
32. Feels worthless or inferior□	0	1	2	3
33. Blames self for problems; feels guilty□	0	1	2	3
34. Feels lonely, unwanted, or unloved; complains that "no one loves him or her"	0	1	2	3
35. Is sad, unhappy, or depressed	0	1	2	3

Performance Academic	**Excellent**	**Above Average**	**Average**	**Somewhat of a Problem**	**Problematic**
36. Reading	1	2	3	4	5
37. Mathematics	1	2	3	4	5
38. Written Expression	1	2	3	4	5

Classroom Behavioral Performance	**Excellent**	**Above Average**	**Average**	**Somewhat of a Problem**	**Problematic**
39. Relationship with peers	1	2	3	4	5
40. Following directions	1	2	3	4	5
41. Disrupting class	1	2	3	4	5
42. Assignment completion	1	2	3	4	5
43. Organizational skills	1	2	3	4	5

Appendix C: RCADS

Please put a circle around the word that shows how often each of these things happens to you.

There are no right or wrong answers.

1. I worry about things

Never Sometimes Often Always

2. I feel sad or empty

Never Sometimes Often Always

3. When I have a problem, I get a funny feeling in my stomach

Never Sometimes Often Always

4. I worry when I think I have done poorly at something

Never Sometimes Often Always

5. I would feel afraid of being on my own at home

Never Sometimes Often Always

6. Nothing is much fun anymore

Never Sometimes Often Always

7. I feel scared when I have to take a test

Never Sometimes Often Always

8. I feel worried when I think someone is angry with me

Never Sometimes Often Always

9. I worry about being away from my parents

Never Sometimes Often Always

10. I get bothered by bad or silly thoughts or pictures in my mind

Never Sometimes Often Always

11. I have trouble sleeping

Never Sometimes Often Always

12. I worry that I will do badly at my school work

Never Sometimes Often Always

13. I worry that something awful will happen to someone in my family

Never Sometimes Often Always

14. I suddenly feel as if I can't breathe when there is no reason for this

Never Sometimes Often Always

15. I have problems with my appetite

Never Sometimes Often Always

16. I have to keep checking that I have done things right (like the switch is off, or the door is locked)

Never Sometimes Often Always

17. I feel scared if I have to sleep on my own

Never Sometimes Often Always

18. I have trouble going to school in the mornings because I feel nervous or afraid

Never Sometimes Often Always

19. I have no energy for things

Never Sometimes Often Always

20. I worry I might look foolish

Never Sometimes Often Always

21. I am tired a lot

Never Sometimes Often Always

22. I worry that bad things will happen to me

Never Sometimes Often Always

23. I can't seem to get bad or silly thoughts out of my head

Never Sometimes Often Always

24. When I have a problem, my heart beats really fast

Never Sometimes Often Always

25. I cannot think clearly

Never Sometimes Often Always

26. I suddenly start to tremble or shake when there is no reason for this

Never Sometimes Often Always

27. I worry that something bad will happen to me

Never Sometimes Often Always

28. When I have a problem, I feel shaky

Never Sometimes Often Always

29. I feel worthless

Never Sometimes Often Always

30. I worry about making mistakes

Never Sometimes Often Always

31. I have to think of special thoughts (like numbers or words) to stop bad things from happening

Never Sometimes Often Always

32. I worry what other people think of me

Never Sometimes Often Always

33. I am afraid of being in crowded places (like shopping centers, the movies, buses, busy playgrounds)

Never Sometimes Often Always

34. All of a sudden I feel really scared for no reason at all

Never Sometimes Often Always

35. I worry about what is going to happen

Never Sometimes Often Always

36. I suddenly become dizzy or faint when there is no reason for this

Never Sometimes Often Always

37. I think about death

Never Sometimes Often Always

38. I feel afraid if I have to talk in front of my class

Never Sometimes Often Always

39. My heart suddenly starts to beat too quickly for no reason

Never Sometimes Often Always

40. I feel like I don't want to move

Never Sometimes Often Always

41. I worry that I will suddenly get a scared feeling when there is nothing to be afraid of

Never Sometimes Often Always

42. I have to do some things over and over again (like washing my hands, cleaning or putting things in a certain order)

Never Sometimes Often Always

43. I feel afraid that I will make a fool of myself in front of people

Never Sometimes Often Always

44. I have to do some things in just the right way to stop bad things from happening

Never Sometimes Often Always

45. I worry when I go to bed at night

Never Sometimes Often Always

46. I would feel scared if I had to stay away from home overnight

Never Sometimes Often Always

47. I feel restless

Never Sometimes Often Always

Appendix D: RCADS- P

Please put a circle around the word that shows how often each of these things happens for your child.

1. My child worries about things

Never Sometimes Often Always

2. My child feels sad or empty

Never Sometimes Often Always

3. When my child has a problem, he/she gets a funny feeling in his/her stomach

Never Sometimes Often Always

4. My child worries when he/she thinks he/she has done poorly at something

Never Sometimes Often Always

5. My child feels afraid of being alone at home

Never Sometimes Often Always

6. Nothing is much fun for my child anymore

Never Sometimes Often Always

7. My child feels scared when taking a test

Never Sometimes Often Always

8. My child worries when he/she thinks someone is angry with him/her

Never Sometimes Often Always

9. My child worries about being away from me

Never Sometimes Often Always

10. My child is bothered by bad or silly thoughts or pictures in his/her mind

Never Sometimes Often Always

11. My child has trouble sleeping

Never Sometimes Often Always

12. My child worries about doing badly at school work

Never Sometimes Often Always

13. My child worries that something awful will happen to someone in the family

Never Sometimes Often Always

14. My child suddenly feels as if he/she can't breathe when there is no reason for this.

Never Sometimes Often Always

15. My child has problems with his/her appetite

Never Sometimes Often Always

16. My child has to keep checking that he/she has done things right (like the switch is off, or the door is locked)

Never Sometimes Often Always

17. My child feels scared to sleep on his/her own

Never Sometimes Often Always

18. My child has trouble going to school in the mornings because of feeling nervous or afraid.

Never Sometimes Often Always

19. My child has no energy for things

Never Sometimes Often Always

20. My child worries about looking foolish

Never Sometimes Often Always

21. My child is tired a lot

Never Sometimes Often Always

22. My child worries that bad things will happen to him/her

Never Sometimes Often Always

23. My child can't seem to get bad or silly thoughts out of his/her head.

Never Sometimes Often Always

24. When my child has a problem, his/her heart beats really fast

Never Sometimes Often Always

25. My child cannot think clearly

Never Sometimes Often Always

26. My child suddenly starts to tremble or shake when there is no reason for this

Never Sometimes Often Always

27. My child worries that something bad will happen to him/her

Never Sometimes Often Always

28. When my child has a problem, he/she feels shaky

Never Sometimes Often Always

29. My child feels worthless

Never Sometimes Often Always

30. My child worries about making mistakes

Never Sometimes Often Always

31. My child has to think of special thoughts (like numbers or words) to stop bad things from happening

Never Sometimes Often Always

32. My child worries what other people think of him/her

Never Sometimes Often Always

33. My child is afraid of being in crowded places (like shopping centers, the movies, buses, busy playgrounds)

Never Sometimes Often Always

34. All of a sudden my child will feel really scared for no reason at all

Never Sometimes Often Always

35. My child worries about what is going to happen

Never Sometimes Often Always

36. My child suddenly becomes dizzy or faint when there is no reason for this

Never Sometimes Often Always

37. My child thinks about death

Never Sometimes Often Always

38. My child feels afraid if he/she has to talk in front of the class

Never Sometimes Often Always

39. My child's heart suddenly starts to beat too quickly for no reason

Never Sometimes Often Always

40. My child feels like he/she doesn't want to move

Never Sometimes Often Always

41. My child worries that he/she will suddenly get a scared feeling when there is nothing to be afraid of

Never Sometimes Often Always

42. My child has to do some things over and over again (like washing hands, cleaning, or putting things in a certain order)

Never Sometimes Often Always

43. My child feels afraid that he/she will make a fool of him/herself in front of people

Never Sometimes Often Always

44. My child has to do some things in just the right way to stop bad things from happening

Never Sometimes Often Always

45. My child worries when in bed at night

Never Sometimes Often Always

46. My child would feel scared if he/she had to stay away from home overnight

Never Sometimes Often Always

47. My child feels restless

Never Sometimes Often Always

Appendix E: Barriers and Facilitators Assessment Instrument

Give a short introduction to the guideline/directive or innovation

Following are a couple of statements about working according to the *directive or innovation*. We would like to know whether you agree with the statement or not and in what degree. If you do not have a strong opinion, please try to find out if it is more like 'agree' or more like 'disagree'. If you really do not know, you can select the option 'do not agree nor disagree'.

1. This '*directive or innovation'* leaves enough room for me to make my own conclusions.

(innovation: specificality, flexibility)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

2. This '*directive or innovation'* leaves enough room to weigh the wishes of the patient.

(innovation: specificality, flexibility)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

3. This '*directive or innovation'* is a good starting point for my self- study.

(innovation: didactive benefit)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

4. I did not thoroughly read nor remember the '*directive or innovation*'.

(care provider: involvement)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

5. I wish to know more about the '*directive or innovation'* before I decide to apply it.

(care provider: knowledge, motivation)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

6. I have problems changing my old routines.

(care provider: life style, working style)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

7. I think parts of the '*directive or innovation*' are incorrect.

(care provider: doubts about innovation)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

8. I have a general resistance to working according to protocols.

(care provider: attitude, role perception)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

9. Fellow doctors (general practitioners) do not cooperate in applying the '*directive or innovation*'.

(care provider: group norms, socialisation)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

10. Other doctors or assistants do not cooperate in applying the '*directive or innovation*'.

(care provider: group norms, socialisation)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

11. Managers/directors do not cooperate in applying the '*directive or innovation*'.

(care provider: group norms, socialisation)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

12. Patients do not cooperate in applying the '*directive or innovation'*.

(patient: motivation to change)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

13. Working to the '*directive or innovation*' is too time consuming.

(innovation: time investment)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

14. The '*directive or innovation*' does not fit into my ways of working at my practice.

(innovation: compatibility)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

15. Working according to this '*directive or innovation*' requires financial compensation.

(context: reimbursement, insurance system)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

16. The lay-out of this '*directive or innovation*' makes it handy for use.

(innovation: attractiveness)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

Barriers and facilitators for implementation – preventive care

Following a couple of questions about implementation of preventive care.

It is difficult to give preventive care…

17. ... if there is not enough supportive staff.

(context: supportive staff)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

18. ... if instruments needed are not available.

(context: facilities)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

19. ... because the timing of the preventative care is awkward.

(context: opening hours of practice)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

20. ... if physical space is lacking (e.d. consulting room).

(context: practice building)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

21. ... because I am not trained in giving preventive care.

(care provider: education)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

22. ... because I have not been involved in setting up the preventive care.

(care provider: involvement)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

23. ... to patients with a different cultural background.

(patient: ethnicity)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

24. ... to patients who seem healthy.

(patient: health status)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

25. ... to patients with a low socio- economic status.

(patient: financial situation, economic status)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

26. ... to older patients (60+).

(patient: age)

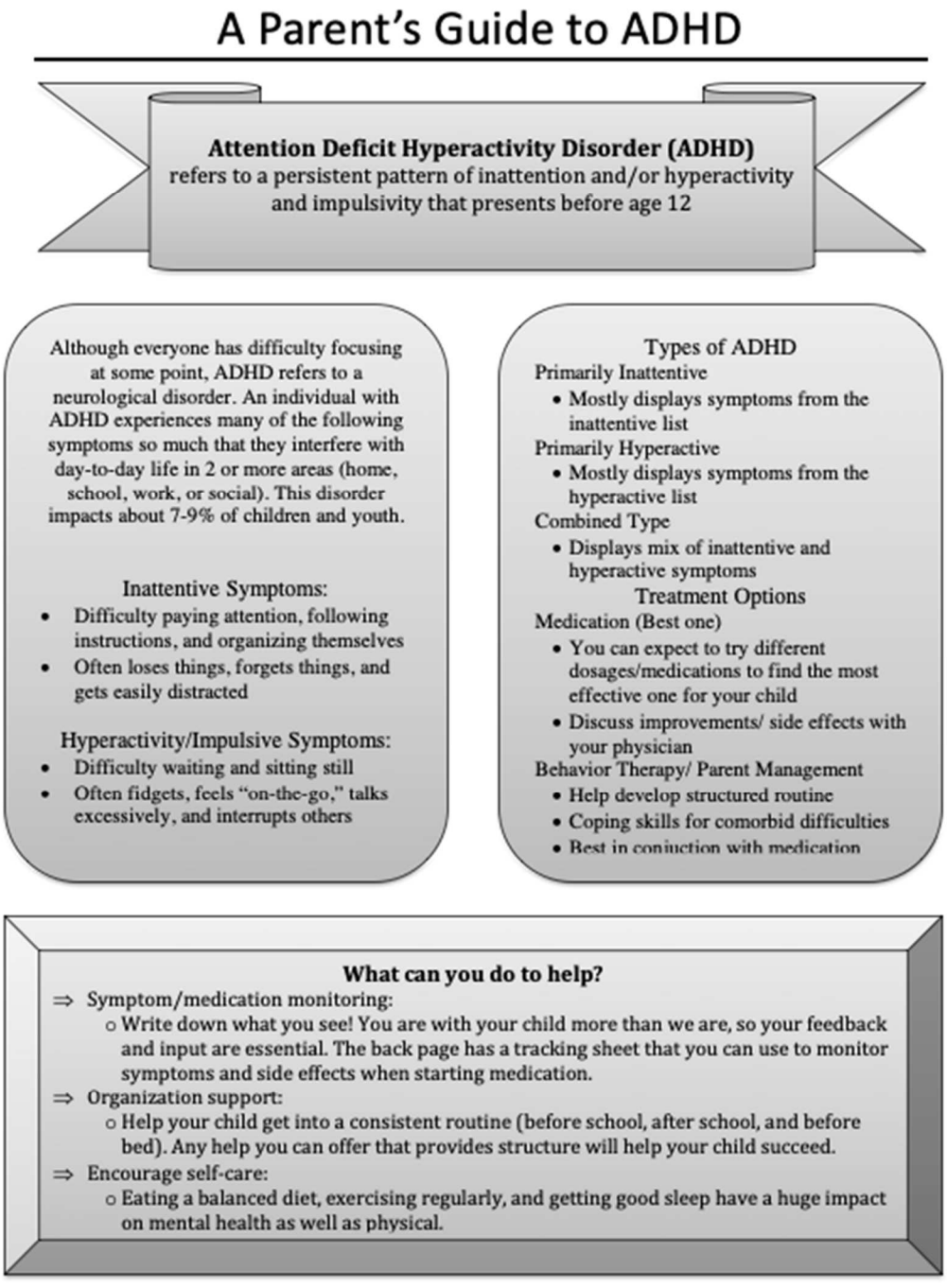
Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

27. ... to patients rarely visiting the practice.

(patient: number of patient contacts)

Fully dis-agree Dis-agree Do not agree or dis-agree Agree Fully Agree

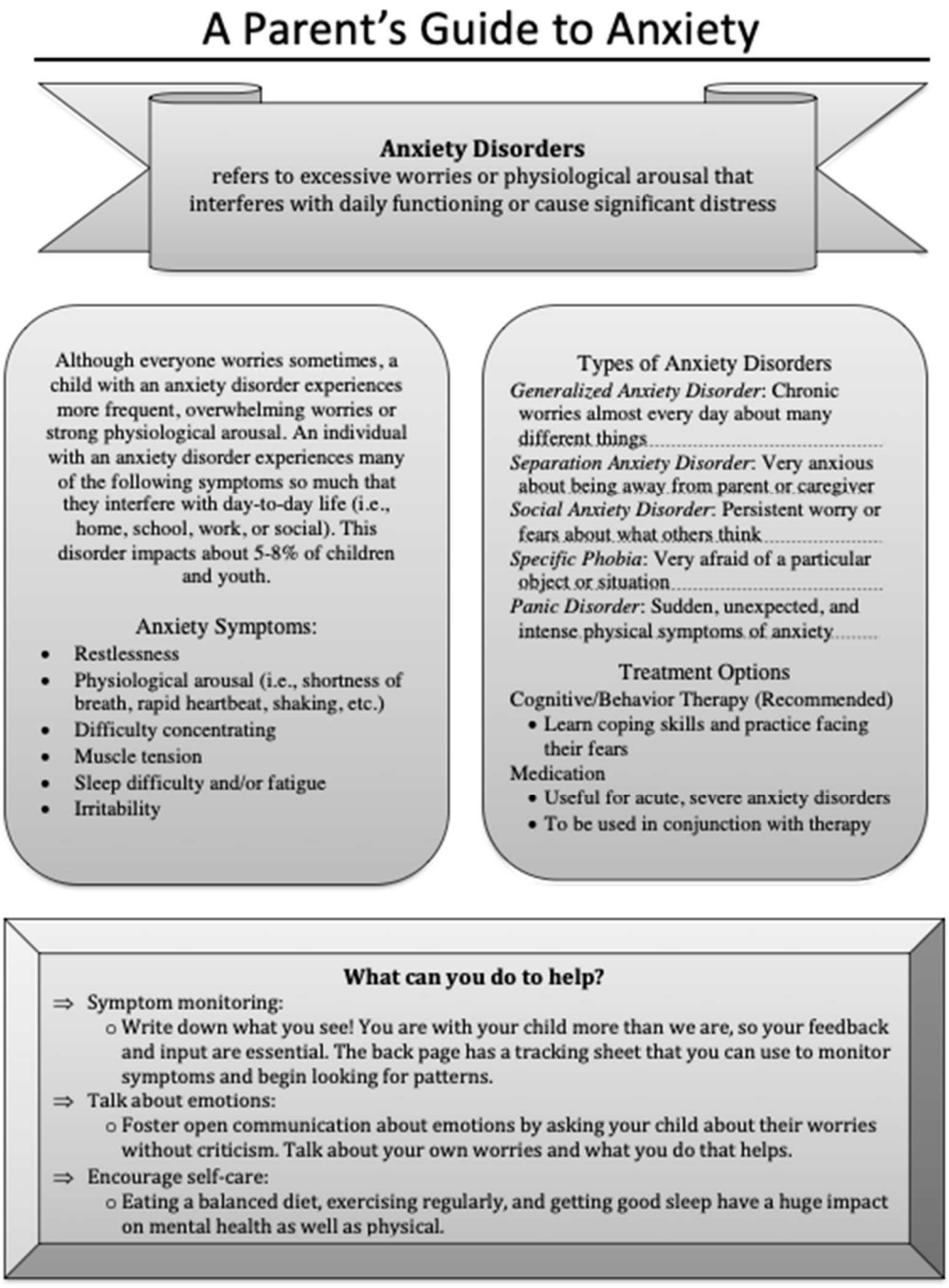
Appendix F: A Parent's Guide to ADHD



ADHD Medication Log

(Month/Day)	Mon (/)	Tues (/)	Wed (/)	Thurs (/)	Fri (/)	Sat (/)	Sun (/)
Medication time taken							
Problem Behaviors	Rate behavior: 0 (really big problem) – 10 (doing really well)						
Overall inattentive behaviors							
Inattentive concern #1: _____							
Inattentive concern #2: _____							
Overall hyperactive behaviors							
Hyperactive concern #1: _____							
Hyperactive concern #2: _____							
Side Effects	☐ **Check here if you noticed any side effects**						
Describe any side effects: **Other comments:**							

Appendix G: A Parent's Guide to Anxiety



Anxiety Monitoring Log

Date/ Time	Situation: What happened right before?	Behavior: What emotional behavior did you see? (i.e., heavy breathing, zoned out, asking lots of questions, etc.)	Outcome: What happened after? How long did your child take to calm down, how did you respond, etc.?	Child rating: How intense was their anxiety? 1-low 10-high	Caregiver rating: How stressed did you feel in the moment? 1-low 10-high

Appendix H: A Parent's Guide to Behavior Problems

A Parent's Guide to Behavior Problems

Behavior Problems
are characterized by frequent defiance and extreme temper tantrums that continue for at least 6 months

Although every child has behavior problems some days, disruptive behavior disorders are more frequent and/or more severe. A child with a disruptive behavior disorder experiences many of the following symptoms so much that they interfere with day-to-day life (i.e., home, school, work, or social). Disruptive behavior disorders impact about 10% of children and youth.

Symptoms of Behavior Problems:

- Easily angered or frequently irritable
- Frequent temper tantrums or emotional outbursts
- Ignoring commands or refusing to follow rules
- Vindictive behavior or blaming others
- Argumentative with authority figures

Types of Behavior Problems

Oppositional Defiant Disorder
- Severe behavior problems that have lasted for 6 months or more

Adjustment Disorder w/ disturbance in conduct
- Behavior problems began right after an upsetting event or major life change

Behavior problems related to another disorder
- Milder behavior problems that are comorbid w/ emotional disorder or ADHD

Treatment Options

Behavior Therapy/Parent Training (Recommended)
- Learn parenting skills related to instructions, consequences, one-on-one time, etc.
- Design personalized structure at home and help implementing consistently

What can you do to help?

⇒ Behavior monitoring:
  - Write down what you see! You are with your child more than we are, so your feedback and input are essential. The back page has a tracking sheet that you can use to monitor symptoms and begin looking for patterns and potential triggers.

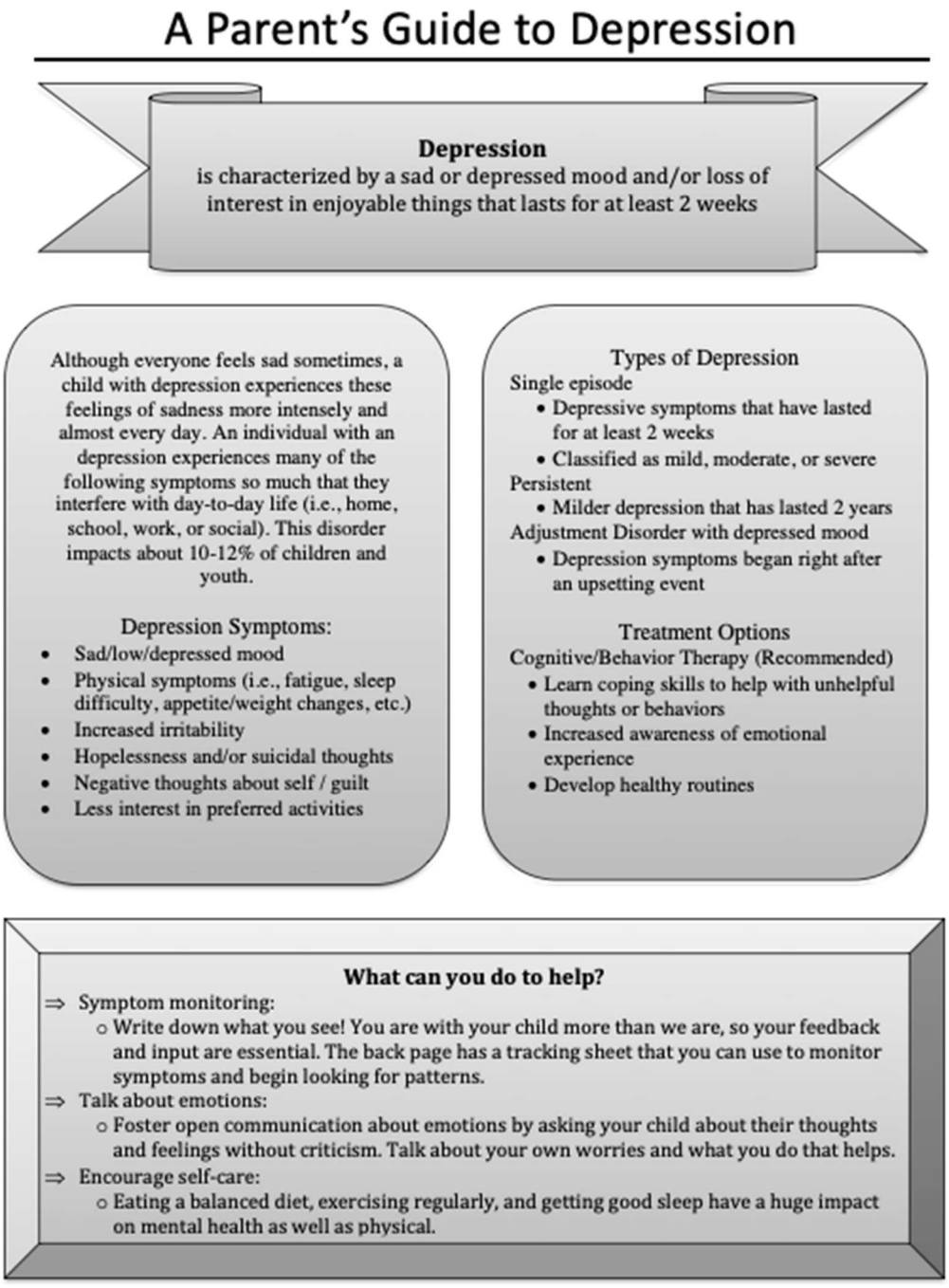
⇒ Stay calm and consistent:
  - Use a calm, firm voice. Follow through with what you say you will do. Beware of emotional escalation traps (trying to convince him/her, spontaneous punishments, etc.).

⇒ Encourage self-care:
  - Eating a balanced diet, exercising regularly, and getting good sleep have a huge impact on mental health as well as physical.

Behavior Monitoring Log

Date/ Time	Situation: Who was there? Where were you?	Antecedent: What happened right before the behavior?	Behavior: What behavior problem did you see? (i.e., temper tantrum, hitting, defiance, etc.)	Consequence: What happened after? How did you respond?
Additional comments:				

Appendix I: A Parent's Guide to Depression



Mood Monitoring Log

Write down what your child did during each time period.
Ask your child to rate their mood and you provide a mood rating (0=low mood; 10=great mood).

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____
Afternoon	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____
Evening	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____	Child: ____ Caregiver: ____

Comments:

Appendix J: Suicide Handout for Parents

What to do when your child feels suicidal:

Guide for parents and caregivers

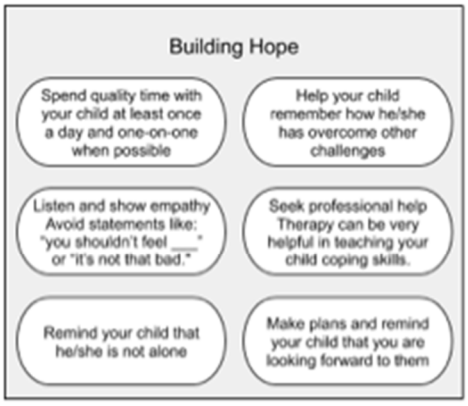
A recent study suggests that 15-20% of children/youth report having suicidal thoughts. These thoughts could be *passive* or *active*.

What to say when your child has suicidal thoughts:

If you are concerned about your child, you want to talk about your concerns and listen to how your child is feeling. It might seem scary to talk about suicide with your child, but taking time to ask and listen can be a good way to show your child that he/she matters.

How to help your child:

If your child is feeling suicidal, you want to help him/her feel more supported, connected to others, and more hopeful by gaining a sense of control and seeing that things can get better. You also want to take steps to make your home a safe place.



What to do when your child feels suicidal:
Making a safety plan

Step 1: What are the situations when these thoughts come up?

Step 2: Coping strategies:

- What will I do to calm myself? (for example, call a friend, go for a walk, listen to music, etc.)
  -
  -
  -
- What will I tell myself?
  -
- What might I tell my best friend if he/she felt this way?
  -

Step 3: Who will I ask for help?

- Name: Phone:
- Name: Phone:
- **Oxford Pediatric Group (M-F; 8-5): 662-513-4399**
- **Suicide hotline (24-hour assistance): 1-800-273-8255**

Step 4: Where will I go to feel safe?

-
-

Step 5: If I still feel suicidal, I will

- Call 911 or get someone to take me to the emergency room

Remember to keep this in a place where you can easily find it. You can also take a picture of the plan on your phone to have it at all times.

Appendix K: Modular Integrated Care Manual

Pediatric Integrated Psychological Services:

Modular Therapist Guide for Brief Treatments

Contents

Introduction

This manual is designed for use in a pediatric primary care setting, which is the first place many families seek help for their children's emotional and behavioral problems. This guide is designed to provide specific suggestions that you can offer to families in a short period of time in a modular fashion, meaning one technique does not depend on any other. Interventions can also be administered in any order, which can be determined using the flowchart that follows and considering the time you have available. Each module is also intended to be simple and concrete so that it can be administered without the provider needing a specialty degree in mental health. The clinician descriptions for each module will include ideas for how to achieve this, as well as to scale the content up or down to fit various session lengths. These are intended to be flexible regarding time, so that administration of treatment modules can be more easily added to your current practice structure.

All sessions should begin with brief assessment regarding presenting problem. This could be done many ways depending on time and resources. Ideally, a broad emotional/behavioral screener would be administered prior to the initial treatment session (e.g., www.genbaassessments.com provides this type of screening tool designed specifically for administration in medical settings). Using the results of screening, it can sometimes be appropriate to also administer relevant modules from a structured clinical interview if time permits (i.e., Children's Interview for Psychiatric Syndromes (ChIPS), P-ChIPS, or M.I.N.I. Kid). If time is too limited for a structured clinical interview, complete a brief clinical interview using the instrument attached as an appendix to this guide. These tasks can be completed by a technician or behavioral health assistant, which will aid in developing a brief conceptualization of the patient's emotional and/or behavioral concerns. Regardless, the first few minutes of the brief

treatment session are best spent summarizing the patient's symptoms as you see them, which will serve as a transition to your suggestions for how to help. For example, you could say something like: "You mentioned that you are experiencing (fill in the blank) problem. I will be teaching you a short skill called, (name here), to help you when (presenting problem) comes up. Do you have any questions or anything you want me to know before we get started?" (Approximately 5-15 minutes).

The next section of your session should focus on teaching AND practicing the selected brief intervention. The brief treatment modules include explanation of what to teach, examples of activities to complete in session, and handouts for children and/or parents to take home for further practice. Each treatment module will follow the same basic format: teach skill, practice activity, and review. One good way to check understanding is to have the child teach the skill to his/her parent at the end or have the parent teach you the skill (Approximately 20-30 minutes).

One key component that should be included in each module is **PRAISE**. This is an essential part of brief treatment. Be sure to encourage every parent to praise their child's effort on ALL skills (not just behavior problems). Remember to encourage specific, immediate praise following EFFORT not success. For parents of children experiencing various types of emotional distress, encourage them to discuss their own emotional processing (at developmentally appropriate levels) to help normalize and support the child speaking about their own emotions.

Remember, the purpose of this manual is to offer brief, flexible mental health services to your patients and their families. All skills included in this manual are based on common elements of evidence based treatments for mental health disorders. So, you can feel confident in the benefits of integrating these skills into your practice. Finally, the authors of this program are available for questions or staff trainings if your practice would like additional support.

Structure of Modules

To help focus your sessions, each module guide starts with a sentence or two that express the main point of the session. Think of this as the "if your patient only gets one thing from this" sentence.

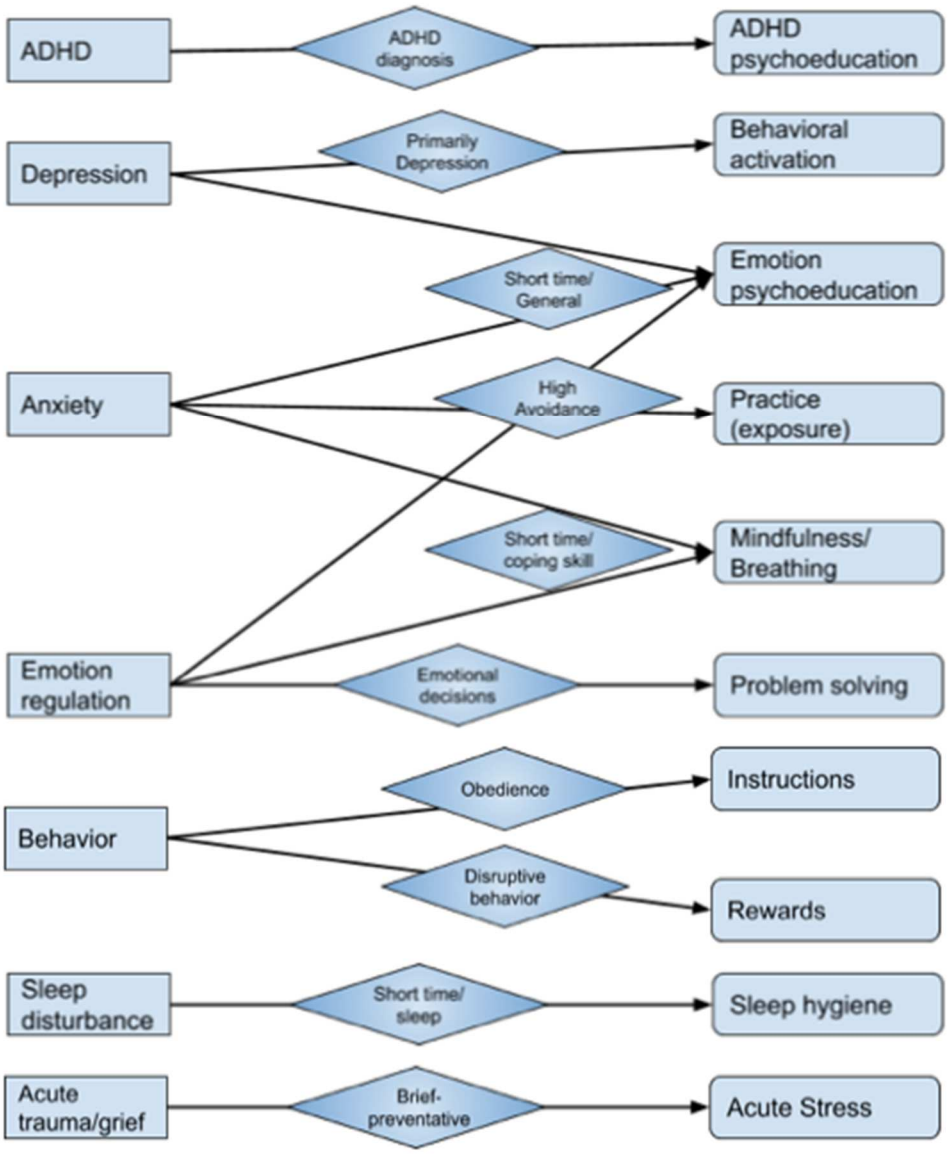
This section will focus on describing what content should be covered and providing examples of how to do this

This reminds you at the end of each session to probe for unresolved questions and ensure the patient understands the take home message.

This section will offer some reminders and guidance for potential challenges to session.

Following the guide, each module has a corresponding handout to provide the patient/family

Flow Chart


ADHD
ADHD diagnosis
ADHD psychoeducation
Depression
Primarily Depression
Behavioral activation
Short time/ General
Emotion psychoeducation
Anxiety
High Avoidance
Practice (exposure)
Short time/ coping skill
Mindfulness/ Breathing
Emotion regulation
Emotional decisions
Problem solving
Obedience
Instructions
Behavior
Disruptive behavior
Rewards
Sleep disturbance
Short time/ sleep
Sleep hygiene
Acute trauma/grief
Brief- preventative
Acute Stress

5

ADHD Psychoeducation

ADHD is a neurological disorder that impairs attention, and it is best treated by medication management.

- Use the following handout to guide discussion with parents about ADHD
- Begin by asking parents how much they know about ADHD
  - Pay particular attention to common misconceptions (i.e. if he/she tried hard enough then he/she would do better)
- Describe ADHD using the what ADHD is and is not section
- Explain the three types of ADHD (inattentive, hyperactive, and combined)
- Remind parents that ADHD can look very different for each kid
- Describe the neurological component of ADHD (Back of handout)
- Inform parents that medication is the gold standard in treatment of ADHD
- Reiterate the importance of tracking symptoms and side effects when trying medication and that finding the best medication for each child can take time

★ Ask parents what questions they have
★ Ensure that parents understand what ADHD is and assess openness to medication management of symptoms
★ Instruct parents to call their PCP's nurse to set up an appointment with PCP for medication consultation

- Look for opportunities to praise parent engagement
- Remember to personalize any description of ADHD to reflect the child you are working with
- Assess parent concerns about diagnosis, school assistance, and/or medication
- Remind parents to contact the clinic with any questions or concerns

6

Attention Deficit Hyperactivity Disorder (ADHD): What Parents Need to Know

★ ADHD is characterized by patterns of inattention and hyperactivity/impulsivity that interfere with functioning in two or more areas (i.e., home, work, school, social, leisure).

★ There are three types of ADHD:
- Primarily Inattentive (displays more inattentive behavior than hyperactive)
- Primarily Hyperactive (displays more hyperactive behavior than inattentive)
- Combined Type (mixed inattentive and hyperactive behaviors)

Inattentive Symptoms

- Lack of attention to details/ careless mistakes
- Trouble holding attention on tasks
- Does not seem to listen when spoken to directly
- Does not follow through on instructions or tasks
- Trouble organizing tasks
- Avoids or is reluctant to do tasks that require sustained mental effort
- Loses things
- Easily distracted
- Forgetful in daily activities

Hyperactive/ Impulsive Symptoms

- Fidgets with hands or feet, or squirms in seat
- Difficulty remaining seated
- Runs or climbs when it is not appropriate
- Unable to engage in leisure activities quietly
- "On the go" or "driven by a motor"
- Talks excessively.
- Blurts out an answer before question has been completed
- Trouble waiting his/her turn
- Interrupts or intrudes on others

7

- ★ The brain works differently for individuals with ADHD
  - Brain structures
    - Areas in the brain related to memory, self-regulation, decision making, motivation, and emotion regulation often take longer to develop in children with ADHD
    - By adulthood, these regions are similar to everybody else's
  - Communication in the brain
    - Certain communication pathways in the brain develop later or are less efficient which results in increased mind-wandering, difficulty making decisions, impulsivity, and lower motivation
    - Medication helps improve communication difficulties in the brain

What you should know about treatments

- ★ Medication is the gold standard treatment
  - Medication can target the neurological difficulties described above
  - Reduces symptoms of ADHD (it's not a "cure")
- ★ Behavioral therapy as an adjunctive treatment to medication
  - For younger children: focus on parenting strategies that emphasize structure, organization, and positive reinforcement of desired behaviors
  - For older children: focus on organizational skills, study skills, social skills, and/or emotion regulation skills
- ★ Consistency is crucial
  - Medication: Consistency gives more accurate impression of dosage needs
    - If you need glasses, you don't wear them while driving to work but not when driving on vacation
  - Behavior therapy: You and your child must regularly use the skills learned in therapy for this treatment to be effective
- ★ Medication is NOT a fix for other behavior problems
  - If your child has an additional emotional or behavioral disorder, medication for ADHD will not treat the other problems

So, how can you help your child?

- ➔ Medication monitoring and frequent communication with prescribing physician
  - ◆ Keep notes on symptoms and side effects you see and communicate regularly with the prescribing physician
- ➔ Organization and structure
  - ◆ Help your child organize their backpack
  - ◆ Provide a planner for homework assignments (check it regularly)
  - ◆ Develop a routine (before school, after school, and at bedtime)
- ➔ Seek accomodations at school
  - ◆ Talk to your child's school about classroom accommodations like extra time for tests, testing in a quieter environment, movement breaks, etc.

Behavioral Activation

When you're feeling down, doing more stuff can make you feel better.

- Use the handout and worksheet to guide your session with the child
- Introduce the concept of behavioral activation (Do more stuff)
- Assess the child's current level of activity
  - What do you do for fun? What do you do after school? How often?
- Then using the handout help the child understand why it is important to be more active
- Using the worksheet, help the child list out activities (aim to get at least 3 ideas for each category and ask the child to complete the rest of the list at home)
- Use the attached activity diary to plan at least one of the activities from the worksheet per day

- ★ Ask the child to summarize what stood out to them in the session
- ★ Inform the child that they will be teaching what they learned to parent
- ★ Allow child to teach parent (providing assistance or answering questions when needed)
- ★ Make sure the child understands that being more active will help their mood even when they don't want to do anything

- Praise as often as possible
- Help the child write down specific activities (i.e. writing "sketching in my room" instead of "art")
- Remind parents to contact the clinic with any questions or concerns

Doing Fun Activities (even when you don't feel like it)

Sometimes you might feel really down or sad. When you feel like this, you might not feel like doing much. For example, you might rather be alone and do activities that require a less effort (like watching TV or taking naps). It may seem like you have no energy to do stuff… even the things that you used to really like to do. Maybe you've felt like this for so long that you feel stuck and aren't sure what you can do to help.

I have great news! The solution is really simple:

Do more stuff!

Simple right? But simple doesn't always mean easy. This guide will help you figure out the *who*, *what*, *when*, *where*, *how*, and *why* of "Do more stuff!"

First things first, why would you do *more* stuff when you don't even want to do what you have to do? Answering this **why** is really important to help give you motivation to be more active.

Three topics will help you understand your own **why**: Values, enjoyment, and mastery

- ★ Values- What do you find meaningful? What is important to you?
  - Values are often grouped into big categories including: family, health, friendships, religion/spiritual, hobbies, school/ learning, etc.
  - Values can help you understand the "why?" of *doing stuff* when you have little motivation or energy.
- ★ Enjoyment- What do you like to do just for FUN?
  - Not everything is really important, some things you just really **like** to do.
  - Think about activities that make you smile, and do them even when you don't feel like it. Why? Because you know it is fun and it can help you feel better!
- ★ Mastery- What activities are you good at? What activities do you want to be better at?
  - Do you play sports or music? What about writing or art? Maybe you are really good at math or science?
  - Why do activities like this? They can help build confidence in yourself and give you goals to work towards.

What activities are you doing now? What are you not doing that you used to enjoy? Get out some paper and make a list of activities that you like to do. (You can use the following worksheet to write out your ideas).

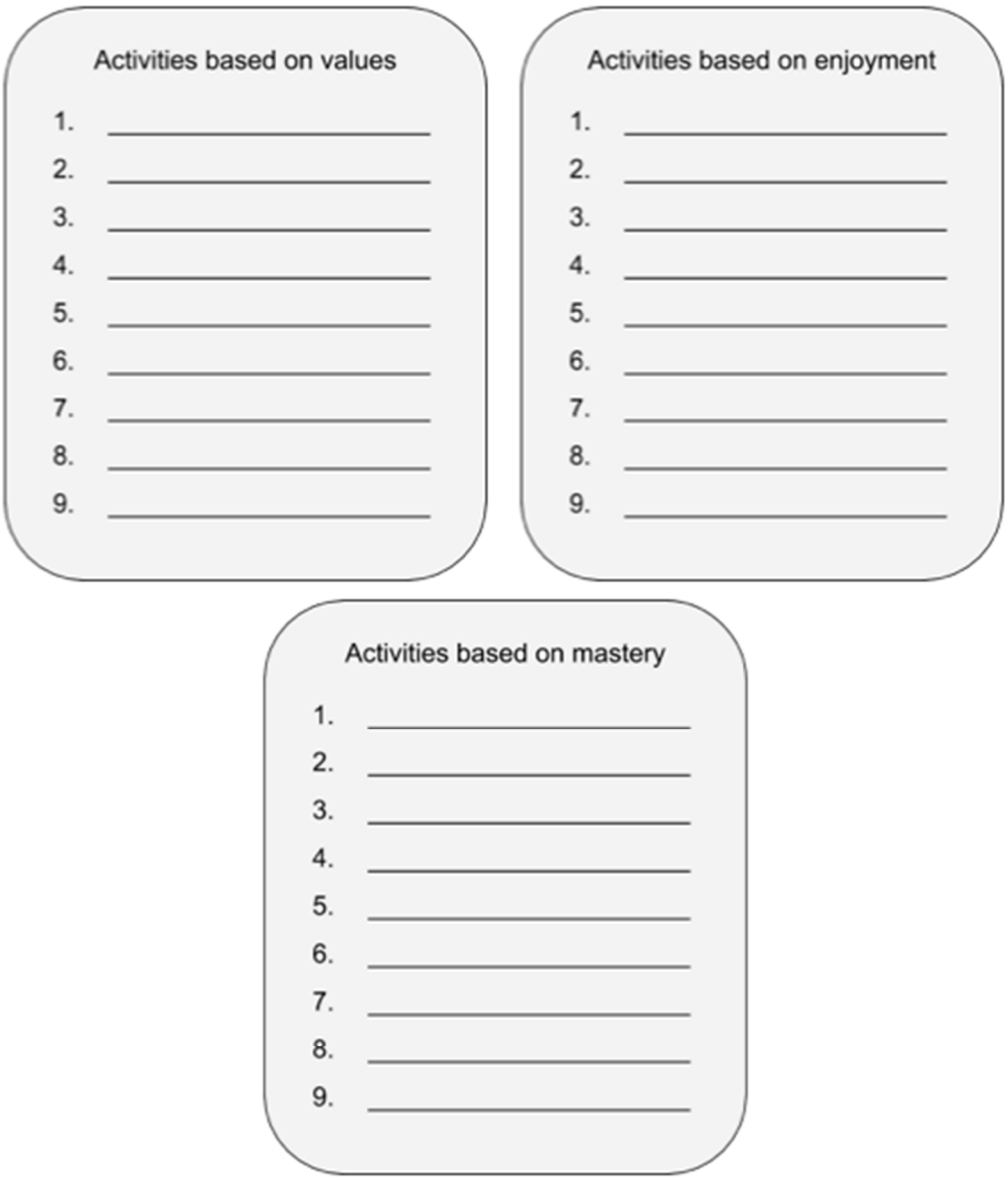
Now that you have a good idea of why you want to *do more stuff* and what activities you might want to do, it's time to think about how to actually do it.

- ➔ Write things down
  - ◆ This helps you notice patterns
  - ◆ What activities made you feel better? What made you feel worse?
  - ◆ The following worksheet has an activity and mood diary to help you keep track.
- ➔ Make a specific plan
  - ◆ Using the activity list you came up with when you thought of **what** you wanted to do, plan to do one activity every day.
  - ◆ Use the other question words to make this plan more specific
    - **When** do you want to do it? Set a specific day and time, then write it into your activity diary for next week.
    - **Where** will the activity take place? At home, at a friend's house, at school, etc.?
    - **Who** will be with you? Will you be alone, with your mom/dad, brother/sister, friend, etc.?

Tips for building motivation to *do more stuff*

- ★ Start small and daily
  - ○ It is better to do one small activity every day than to do 3 things one day but nothing for 3 days after that. A little at a time will help you feel better faster.
- ★ Keep track of how you're doing
  - ○ Use the activity diary every week for at least a month
  - ○ This will help you see what activities are actually helping your mood
- ★ Remember your **whys**
  - ○ Doing stuff when you really don't want to is hard work. The **whys** you thought about earlier help you think about more than just what you feel right now.
  - ○ Create visual reminders! Write out or draw your **whys**, and post them around your room or house.
- ★ Ask for help!
  - ○ If you are trying to *do more stuff* but you are still really struggling, ask your mom, dad, teacher, or someone you trust for more help!
  - ○ You could also ask someone to do the activities with you, which often ends up being the most fun kind of stuff to do!

Doing Fun Activities: Worksheet



Activity Diary

Write down what you did every hour and rate your mood 0-10 (0=low mood; 10=great mood)

	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
7:00AM							
8:00AM							
9:00AM							
10:00AM							
11:00AM							
12:00PM							
1:00PM							
2:00PM							
3:00PM							
4:00PM							
5:00PM							
6:00PM							
7:00PM							
8:00PM							
9:00PM - 12:00AM							

Emotion Psychoeducation

Emotions are made up of thoughts, feelings, and behaviors; and you can change it up to feel better.

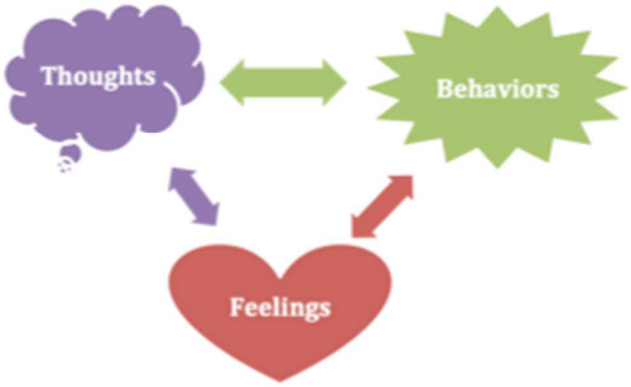
- Introduce the three component model of emotions (i.e., thoughts, feelings, and behaviors
- Begin by using a general example or analogy to explain how thoughts, feelings, and behaviors impact each other
- Teach that sometimes, feelings take over and make it harder to think clearly and behave like normal
- Work with the child to walk through each part for a personal example
  - Think about a time this week when you felt a big emotion? What was going through your head? What did you feel in your body? What did you do?
- Teach the child that emotions have a purpose and are not "bad" even if they don't feel good
- Explain that how we think, feel, and act can change even if you are used to doing things one way

★ Ask the child to summarize what stood out to them in the session
★ Inform the child that they will be teaching what they learned to parent
★ Allow child to teach parent (providing assistance or answering questions when needed)
★ Ensure the child understands emotions have three parts and they can change

- Praise as often as possible
- Encourage the child to write down their emotional experiences and look for patterns
- Remind parents to contact the clinic with any questions or concerns

Understanding Emotions

Emotions are made up of thoughts, feelings, and behaviors. When you start to feel upset, it can be helpful to understand these and how they are connected.
Imagine you are meeting someone new. You might think, "They won't like me." You may feel butterflies in your stomach. You may look at your feet instead of talking to the person. Your thoughts, feelings, and behaviors all relate to each other. What if instead of looking at your feet, you said something nice to the person? How might that behavior change your thoughts or feelings?



- Thoughts are the words or pictures that go through your head. This could be things about yourself, other people, what is happening, etc. For example, "I am going to mess up," "she doesn't like me," or "this is boring."

- Behaviors are the things you do or how you act. For example, a behavior could include running, saying something mean or nice to someone else, or playing video games.

- Feelings are what you feel in your body like your heart beating fast, upset tummy, sweaty hands, or heavy eyes. Some feelings are uncomfortable, but they are not bad. Everyone feels them sometimes.

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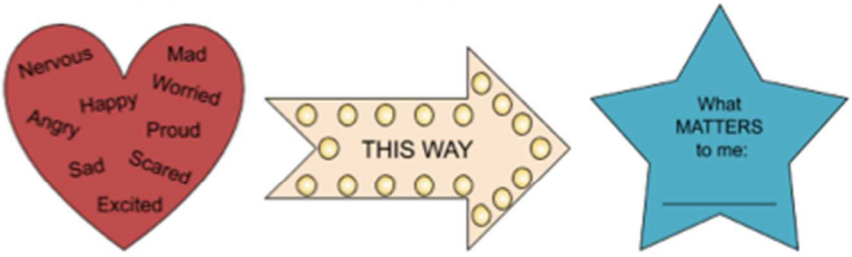
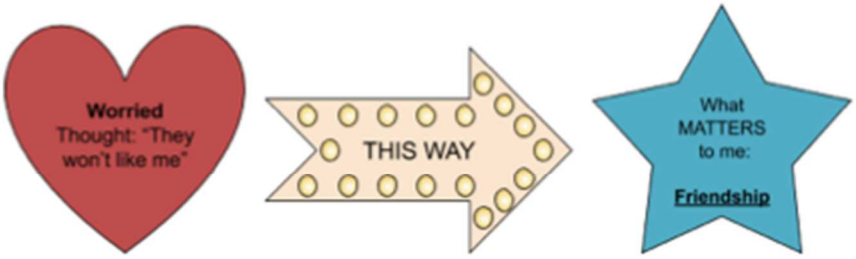
Understanding Emotions Cheat Sheet

★ Emotions are normal!
- Everyone feels scared, happy, sad, nervous, excited, proud, and other emotions.
- Emotions aren't "bad," even the feelings you don't really understand and the feelings you may not like.

★ Emotions do a job!
- They point you to what matters. When you feel a really big emotion, it is telling you to pay attention to something important



- Think back to the example about meeting someone new. You might write out something like this:



So, what do you do with all this info?

➔ Keep a journal
- ◆ Write about your thoughts, feelings, and behaviors
- ◆ Write what was happening when you started feeling upset

➔ Look for patterns
- ◆ What thoughts come up a lot?
- ◆ What types of things matter a lot to you?

➔ Be flexible
- ◆ Come up with a different thought than what first went through your mind
- ◆ Do a different behavior (say "hello" instead of looking at your feet)

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Practice (Exposure)

Avoidance makes anxiety worse in the long run, so it is better to practice the things that are scary.

- Define avoidance (getting out of scary things or staying away altogether)
- Using the image on the handout, explain how the fear loop works to keep him/her scared
- Teach that emotions come and go naturally
  - What goes up must come down. This rule applies to negative emotions as well.
- Emphasize the idea of PRACTICE
  - Facing scary things takes time
- Discuss reasons to engage in scary things (emphasizing that avoidance keeps you from doing things that you want to do)
- Explain the fear ladder and rating emotions
  - Use time in session to brainstorm feared activities and start organizing to create fear ladder
- Plan one thing to practice this week

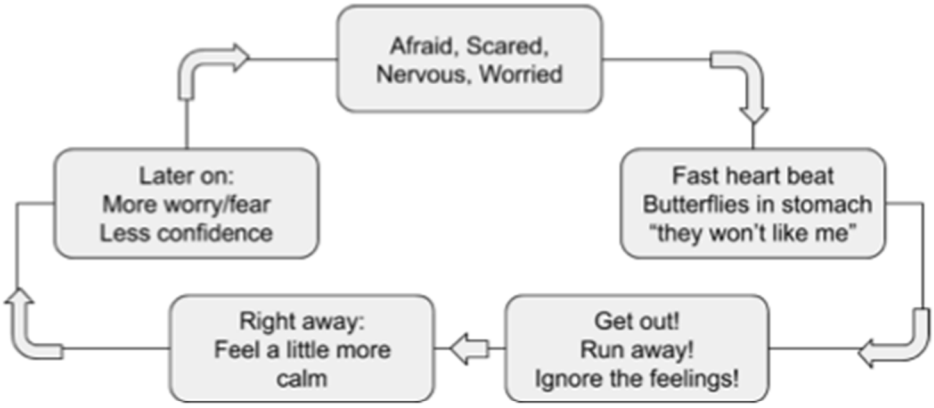
★ Ask the child to summarize what stood out to them in the session
★ Inform the child that they will be teaching what they learned to parent
★ Allow child to teach parent (providing assistance or answering questions when needed)
★ Ensure the child understands how and why they should engage in exposures

- Praise as often as possible
- Encourage the child to practice facing scary things every day
- Discuss any fears that parents might have surrounding exposure practice and ensure parental engagement
- Remind parents to contact the clinic with any questions or concerns

Facing your fears

Imagine that you are standing around after school and you start to feel nervous. You might feel your heart start to beat really fast or get butterflies in your stomach. You think something like, "Everybody will think I'm weird" or "People will laugh at me if I try to talk to them." Because you were thinking this way, you decided to go stand by yourself. What happens the next day when you're standing around after school in the same situation?

When you do things to get out of feeling nervous or scared, it is called "avoidance" or "escape." Getting out of scary things can sometimes make you feel better right away, but it can make you even more scared the next time. Before you know it, you can get stuck in a **fear loop**.



Even though it sometimes feels better to stay away from scary things, it could cause you to miss out on things that you really want to do. So, are you just stuck in this loop forever? Not at all! You can break the loop by practicing facing your fears. This helps you in three ways:

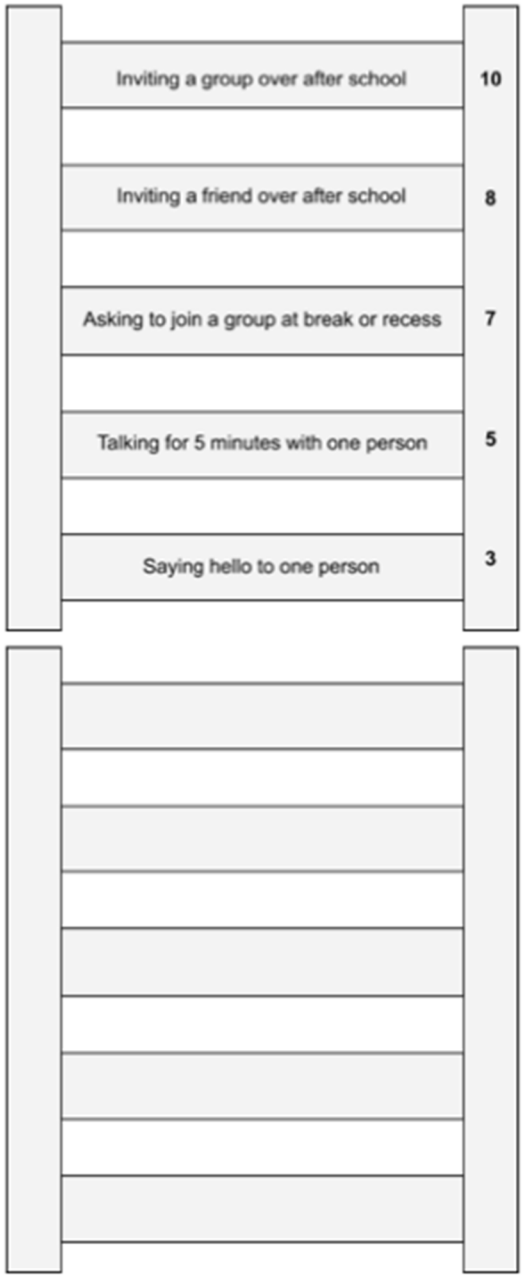
1) You get better at dealing with things that are scary.
2) You build confidence in yourself, because you faced your fear.
3) The things that were scary before might not seem so bad after a while.

I know what you're thinking, "That sounds cool and all, but I'm not sure how to do that." That's okay! You don't start by doing the scariest thing you can imagine; you start SMALL. That part is really important - small steps and regular practice are way, way better than trying to do it all at once. You slowly break the fear loop by doing the things that make you feel scared.

Steps to Facing your Fears

- ➔ STEP 1: Make a list of some of the things that make you feel scared or nervous
  - ◆ Write out some things that you have avoided because you were afraid
  - ◆ Be specific about your fears (see next page for example)
- ➔ STEP 2: Rate your fears from 1-10
  - ◆ Use the thermometer here to say how scared you are of each fear

- ➔ STEP 3: Put them in order from the least scary to the most scary.
  - ◆ You can think of this like a ladder. You need to start at the bottom and go up slowly
  - ◆ The next page has an example ladder and a blank one for you to use
- ➔ STEP 4: Practice facing your fears!
  - ◆ Start at the bottom of your fear ladder
  - ◆ Face that fear over and over until you feel more comfortable doing it
  - ◆ You will feel nervous or scared when facing your fears. This is normal!
  - ◆ Practice, practice, practice
    - It's just like working out to play a sport
    - The more you practice, the better you will get
  - ◆ Remember to get HELP if you need it! Talk to your parent, teacher, friend, or trusted adult to get some help facing your fears
- ➔ STEP 5: Celebrate when you face your fears!
  - ◆ Facing your fears is scary and you're doing a great job by practicing every day! Take time after each practice to celebrate that you did something really hard. Keep going; you can do this :)


Inviting a group over after school
10
Inviting a friend over after school
8
Asking to join a group at break or recess
7
Talking for 5 minutes with one person
5
Saying hello to one person
3

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Mindfulness/ Breathing

Practicing mindfulness and breathing can help get out of your head and focus on what's going on right now.

- Introduce mindfulness to the child (i.e., mindfulness helps stay in the right now instead of thinking about past mistakes or what might happen)
- Engage in a mindfulness practice using 5 senses
  - Have the child close his/her eyes and walk through awareness exercise ending with eyes
  - At the end ask the child "what was going through your mind during that activity?"
- Emphasize the idea of PRACTICE
  - MIndfulness is not always easy at first, so you need to practice daily
  - Optional Analogy: you don't wait until game day to practice your free throw, practicing gets you ready for the game (game= big emotions)
- Use the mindfulness for families guide to teach the parent different ways to help the child practice mindfulness
- Emphasize that mindfulness helps us to slow down and focus on the present when emotions get really distracting

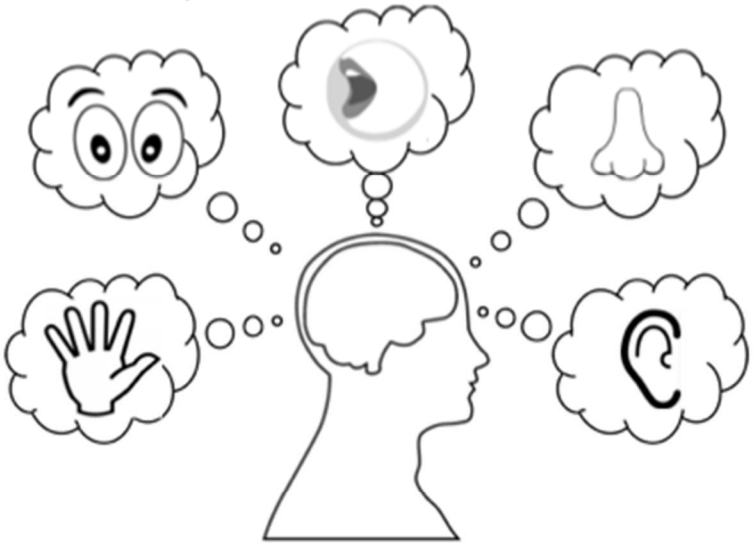
★ Ask the child to summarize what stood out to them in the session
★ Inform the child that they will be teaching what they learned to parent
★ Allow child to teach parent (providing assistance or answering questions when needed)
★ Ensure the child understands why mindfulness helps and how to practice

- Praise as often as possible
- Encourage the child to practice mindfulness every day
- Encourage parents to practice this with the child
- Remind parents to contact the clinic with any questions or concerns

Mindfulness Practice

Have you ever felt really tired or frustrated because you can't seem to slow your mind down? It seems like you have a million thoughts about what might happen tomorrow (or maybe the bad thing that happened yesterday)? Mindfulness can help you learn to clear your head.

- ★ What is mindfulness?
  - Focus on the *here* and *now* rather than thinking about the past or future
  - Using your 5 senses can help you focus on the *here* and *now* and notice the world around you



- ★ How does mindfulness help?
  - Improve awareness of your own emotions and thoughts
  - Help you calm down/relax
- ★ When to use it?
  - Start by practicing when you are calm
  - Use mindfulness when you notice you are getting upset
  - Practice before bed to help you sleep better
- ★ Practicing tips!
  - Practice one activity really well each day rather than trying to do many activities
  - Give yourself time! Mindfulness may sound really easy, but it takes time to build up this skill
  - Practice as a family! It can be fun to do these activities together

Mindfulness Activities for Families

Mindfulness anytime:

- 5 senses exercise
  - Start by asking a question about one of the senses, "What do you (see, hear, smell, touch, taste)?
  - Take turns calling out everything you notice with that sense
  - Move on to the next sense and repeat until you have gone through all 5 senses
- Body scan
  - Practicing noticing what you feel in each part of your body
  - Start with your toes and work your way up to your head. Noticing things like:
    - What do your clothes feel like?
    - Any tight muscles or pain?
    - Are you hot or cold?
- Mindful check-in
  - Ask your child to think about *right now*. You can prompt your child to answer the following questions about how they feel *right now*:
    - How do you feel physically? What are you feeling in your body?
    - What is going through your mind? What are you thinking?
    - How do you feel emotionally? What emotion are you feeling now?
  - This can be useful if you notice your child appears to be getting upset. You can use this to help your child gain more emotional awareness
- Deep breathing
  - Basic deep breathing
    - Prompt your child to breathe in for the count of 4, hold the breath for the count of 2, breathe out for the count of 5, hold for 2, and repeat
    - Could say something like, "Try to breathe with me like this. Breathe in 2, 3, 4. Hold, 2. Breathe out 2, 3, 4, 5. Hold 2." (Repeat at least 5 times)
  - Ocean breathing (more imaginative)
    - Follow the same pattern as above, but explain to your child that they can use their breath to sound like the ocean
    - Breathe in (as above) through your nose and breathe out through your mouth
    - The sound of breathing out will sound similar to crashing waves
  - Shoulder roll breathing (Includes physical movement)
    - Follow the same pattern as above but encourage your child to raise their shoulders up to their ears while breathing in, and then relax their shoulders all the way when they breathe out

Mindfulness at meal time:

- Mindful eating
  - When you sit down to eat, prompt your child to slow down and notice what the food looks, smells, and tastes like.

- Encourage your child to take a small bite of food and let it sit on their tongue a few seconds before chewing and swallowing
- Ask him/her to describe the experience and you describe yours

Mindfulness during travel time:

➔ I spy

- This game is played by one person saying, "I spy something (color)." Then you or your child would try to guess what object was seen
- Playing I spy can help your child notice things they might've missed on car rides

Mindfulness for bedtime:

➔ Progressive Muscle Relaxation

- This activity helps your child learn to relax by systematically tensing up muscle groups and then relaxing those muscles. Read the following script out- loud to help your child practice relaxation. Take your time, read slowly, and do the activities with your child!

➢ Close your eyes and take a deep breath in (pause) then let it all out. Do that a few more times (pause quietly for 10 seconds).
➢ Now, imagine you are trying to pick up a sock with your toes. Squeeze your toes as tight as you can. Squeeze a little tighter like you want to lift the sock off the ground. Now let go and relax your toes (pause quietly).
➢ Imagine you see cookies on the top shelf of the pantry and you have to stand high on your tippy-toes to reach. Tense your legs up like you are standing as tall as you can. Now relax your legs (pause quietly).
➢ Imagine that you are laying down. A baby elephant is headed right towards you and doesn't see you. He's about to step on your stomach, so you want to make it as hard as you can. Hold it really tight. Relax, you see that he turned the other way (pause quietly).
➢ Imagine that you are a turtle sitting by a pond. Suddenly, you see something scary and curl up into your shell. You pull your shoulders up to your ear and tuck your head down as tight as you can. Hold it (pause) and relax (pause).
➢ Imagine you are an orange furry cat who just woke up from a nap. You reach your arms way out in front of you and stretch them high over your head. You feel your shoulders get tighter as you reach your arms up and back. Now, let your arms drop by your side (pause).
➢ Imagine you are holding one orange in each hand. Squeeze your hands really tightly into fists. Squeeze a little tighter to get the last bit of juice out. (pause) Relax your hands (pause).
➢ Imagine a butterfly on your nose. Now try to scrunch up your face really tightly as if you are trying to make the butterfly move. Wiggle your nose, raise your eyebrows, whatever you need to do to make it leave. (pause) Relax your face. (pause).
➢ Now take some time and notice how relaxed you feel from your toes to your nose.

Problem Solving

These 5 steps to problem solving can help when a situation feels overwhelming and don't know what to do.

- Introduce problem solving as a way to figure out what to do in difficult situations
- Use an activity to practice the 5 steps
  - Set a pen on one side of the room and tell the child to move the pen to the other side of the room (i.e. from the floor to a chair or table) without using his/her hands, elbows, or mouth
  - Walk through the 5 STEPS
  - Emphasize the importance of defining the problem specifically
  - Use as many solutions as necessary to complete the activity
  - Once he/she succeeds, point out that there are many other solutions to the problem. For example, he/she could ask you to move the pen since you can use your hands. Use this to teach that sometimes we get stuck thinking one way (i.e., I have to do __) and asking for help is a good thing
- Work through the STEPS again with a personal problem

★ Ask the child to summarize what stood out to them in the session
★ Inform the child that they will be teaching what they learned to parent
★ Allow child to teach parent (providing assistance or answering questions when needed)
★ Ensure the child understands the 5 steps and how to define a problem

- Praise as often as possible
- Encourage the child to keep the STEPS image somewhere accessible (if older child has a phone, take a picture)
- Encourage the parents to prompt child to use problem solving skills
- Remind parents to contact the clinic with any questions or concerns

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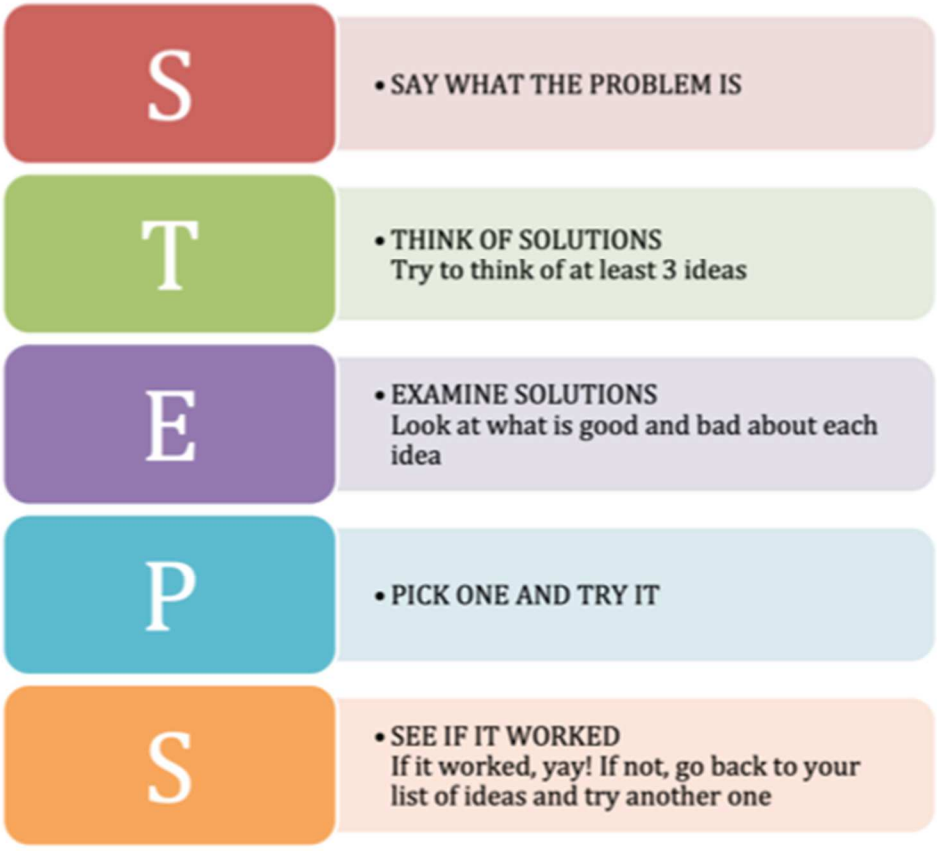
5 STEPS for Problem Solving

Some children have a hard time solving the problems in their lives, such as problems with school, friends, or emotional distress. When facing these problems, many kids feel hopeless or helpless. It is important to remember that everyone faces problems that are hard to solve, and learning some STEPS to solving problems can be very helpful.



Problem Solving Tips:

- ★ The first step might sound really easy, but sometimes it can be hard. Here are a couple of ideas to help with saying what the problem is:
  - Be specific
    - Hard to understand: "I'm upset"
    - Easier to understand: "I'm upset because kids at school made fun of me"
  - One thing at a time
    - Too many: "Other kids are mean to me, I made a bad test grade, and cleaning my room is sooooo boring"
    - Focused and clear: "Cleaning my room is sooooo boring"
- ★ Don't be afraid to ask someone for help!
  - Sometimes it's hard to think of ideas when you are upset.
  - Ask your mom, dad, teacher, or someone you trust to help you if you feel stuck.
  - Some really good solutions might need you to ask someone else for help and that's okay!

So, what do you do now?

- ➔ You can use these STEPS when:
  - ◆ You are upset about something
  - ◆ You feel stuck about what to do
  - ◆ You tried to fix a problem but it didn't work
- ➔ Write it out
  - ◆ Slow down long enough to write out your ideas
  - ◆ Take your time and finish one step before you go to the next one
- ➔ What if it you solve one problem but still feel bad?
  - ◆ ASK! It is completely okay to ask for more help if you have tried STEPS and still feel stuck or upset a lot
  - ◆ Talk to your mom, dad, or someone you trust about getting more help

Instructions

The way you give an instruction impacts the likelihood that a child will complete the task.

- Introduce behavioral principles
  - Praise- specific, positive attention for good behavior
  - Consistency- especially important in split families
- Explain PSS & Repeat
  - Emphasize positive behaviors. Optional analogy- When you are walking down the hallway and see a "Do not enter" door, what do you think? Even if you don't open it, you probably want to know what is inside? Telling kids "don't do" this and that creates a bright red Do not enter sign pointing at that behavior. Now your child's full attention is on the thing they want to do but shouldn't. You want to practice directing attention towards the doors they can go into.
- Use the handout to review common pitfalls of instructions
- Explain when and how to use forced choice and timed explanations
- Provide an overview of the back page for how to say things
- Emphasize the section on consequences and follow through

★ Ask the parent give an example in which he/she could use this
★ Assess any parental concerns and be prepared to respond to concerns about behavioral interventions (i.e., they should just do what I say)
★ If only one parent is present, discuss how to get on the same page with other parent/caregiver
★ Ensure the parent understands PSS & repeat

- Praise as often as possible
- Remind parents that this is a tool to use when compliance with an instruction is important. Parents should choose their battles selectively in the beginning
- Remind parents to contact the clinic with any questions or concerns

Giving Instructions:

WHAT you say and HOW you say it matters!

Instruction WHAT Rules:

Remember: **PSS & Repeat**

- ★ Be **P**ositive
  - Say what you WANT them to do not what you don't want them to do
- ★ Be **S**pecific
  - Give exact expectations to eliminate confusion
- ★ Be **S**ingle
  - Give instructions one at a time
- ★ **Repeat**
  - Have the child repeat the instruction back to you to ensure they heard you and understand the expectation.

Common pitfalls of giving instructions:

- ➔ Asking questions - "Can you clean your room?"
- ➔ Saying "let's" - "Let's go clean your room."

Other options for giving good instructions:

- ➔ Forced choice
  - ◆ Use equivalent options to give your child some say in task assignment
  - ◆ Encourages child to participate in decision-making and develop autonomy
  - ◆ You can remind the child that they chose _____ option
  - ◆ Examples:
    - "Put your clothes away or take out the trash."
    - "Use your inside voice or go play outside."
- ➔ Timed explanations (for the child always asking "why?")
  - ◆ Answering a why immediately can give the impression that your child can change your mind
  - ◆ Offer explanations before the instruction or after the child completes the task
  - ◆ Examples of explanations before:
    - "It is time to go to school. Turn the TV off."
    - "It is almost bedtime, put your phone away."
  - ◆ Example of explanation after:
    - Parent: "Set the table"
    - Child: "Why can't you do it?"
    - Parent: (ignores question. After child completes the task) "Thank you for setting the table while I finished cooking dinner."

Instruction HOW Rules:

- ★ Use a calm, neutral tone
  - Speak at a normal volume rather than yelling
  - When you stay calm, it can prevent escalation
  - Example:
    - Say, "Please rinse your plate off"
    - Not, "You know you're supposed to rinse your plate!!!"
    - Say, "Please turn the TV off"
    - Not, "You need to turn the TV off right now!!!"
- ★ Be polite
  - One easy way to be polite is to say "Please" before your instruction
  - When you are polite to your child, you are modelling appropriate social behavior
  - Example:
    - Say, "Please take turns with your sister"
- ★ Get your child's attention
  - Be in the same room with your child (Don't yell instructions from another room)
  - Say your child's name and wait until they look at you to give the instruction
- ★ Communicate consequences
  - Positive consequences for obedience
    - Be sure to make the statement about the behavior, not the child
    - Examples:
      - Good: "Thank you for completing your homework"
      - Confusing: "You are so smart"
  - Negative consequences for disobedience
    - If a child ignores or refuses an instruction, restate the instruction and state the consequence for disobedience
    - Examples:
      - Good: "Give your brother a turn or you will get a time out"
      - Confusing/ambiguous: "Do what I said or you'll be in trouble"
  - FOLLOW THROUGH on whatever you say you will do
    - Do not issue threats or consequences you don't mean
    - Pick your shots when issuing instructions - you have to be prepared to spend as long as it takes to see your child do what you asked

Rewards

Earning rewards for good behavior will help your child learn how to behave well better than punishing bad behavior.

- Introduce behavioral principles
  - Praise- specific, positive attention for good behavior
  - Consistency- especially important in split families
- Using the image on the handout, explain rewards emphasizing that it requires good behavior not the absence of bad behavior
- Emphasize positive behaviors. Optional analogy- When you are walking down the hallway and see a "Do not enter" door, what do you think? Even if you don't open it, you probably want to know what is inside? Telling kids "don't do" this and that creates a bright red Do not enter sign pointing at that behavior. Now your child's full attention is on the thing they want to do but shouldn't. You want to practice directing attention towards the doors they can go into.
- Use the attached worksheet to create a specific plan with parents
  - Emphasize rewards that can be provided frequently and at little to no cost (i.e., extra screen time, one on one time with parent, escape card for specific chores, etc)

★ Ask the parent give an example in which he/she could use this
★ Assess any parental concerns and be prepared to respond to concerns about behavioral interventions (i.e., they should behave well because it's right)
★ If only one parent is present, discuss how to get on the same page with other parent/caregiver
★ Ensure the parent knows how to implement a rewards system at home

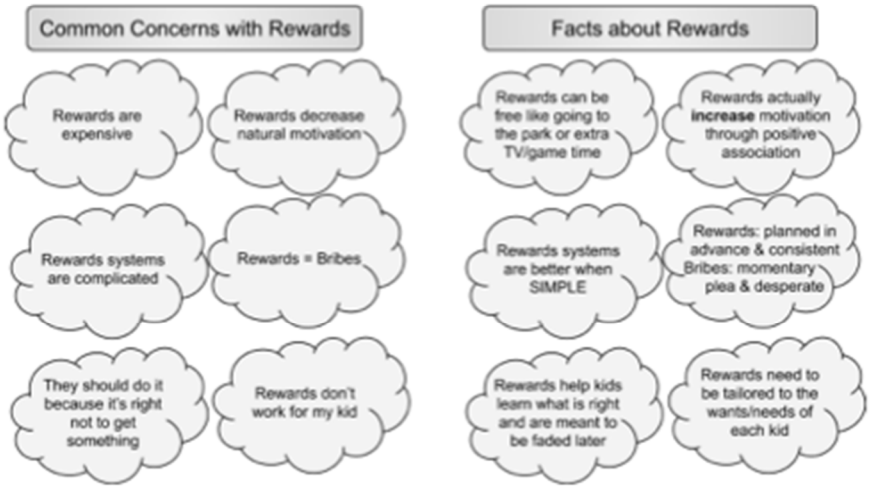
- Praise as often as possible
- Remind parents that it is important to be consistent
- Post expectations and rewards in a visible spot for the child (pictures for younger children, words for older kids)
- Remind parents to contact the clinic with any questions or concerns

How to use rewards to help your child

Rewards are a great tool to increase how often your child engages in good behaviors. I know what you are thinking, "I just want him/her to stop doing _____. How are rewards going to help with that?" Using rewards shifts the focus from what you want your child to *stop* doing to what you want them to do *more* often. Rewarding good behavior will direct your child's attention and energy to more positive behaviors leaving less time to do bad things. Additionally, using rewards can help reduce frustrations for you and your child and increase the opportunity for positive interactions.

<u>Understanding your child's behaviors:</u>

- ★ Behaviors have consequences
  - Natural consequences are things you don't control
  - Contrived consequences are intentionally put into place to change behavior
- ★ Consequences change our future behavior
  - Positive consequences make the behavior *more* likely to occur next time
  - Negative consequences make the behavior *less* likely to occur again
- ★ Behavior has a function
  - Attention: desire for social interaction (doesn't matter if it's negative)
  - Tangible: getting access to desired item or activity
  - Escape: getting out of something undesirable
  - Sensory: the behavior feels good on its own



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Steps to Using Rewards

- ★ STEP 1: What behaviors do you want to occur more often?
  - Be specific!
    - "Be kind" could mean many things. A better behavior would be "Asking for a toy instead of taking it" or "Telling mom you're upset in a calm voice."
  - Keep it simple!
    - Start with a small list of behaviors (3-5). This will help both you and your child remember what behaviors are expected.
  - Set reasonable goals!
    - Give your child the best chance to win. Make sure the behavior is achievable for your child and that rewards are frequent in early stages of learning a new behavior.
- ★ STEP 2: Make a list of rewards
  - Think of rewards that are free or inexpensive so they can be offered frequently.
  - Make a list of items, food, or activities that your child really enjoys. This can mean that you have to restrict access to the reward unless it is earned (i.e., limited TV time but can earn more through rewards).
  - Think creatively!
    - Kids often love to be in charge. Rewards can include: getting to decide what to have for dinner, being in charge of the TV channel for a certain amount of time, etc.
    - Escape card: kids can earn a card that lets them get out of one activity (i.e., getting out of a chore for the evening, 30-minute break from any activity, getting out of eating undesired food, etc.)
- ★ STEP 3: Make your plan
  - How will your behavior goals be connected to the rewards? Will the behavior directly receive a reward? Will behaviors build up points (or stars or tokens) that can be exchanged for rewards? If so, how much will rewards "cost"?
  - How do you plan on tracking the behavior and rewards?
- ★ STEP 4: Use the plan
  - Make sure your child understands the expectations and available rewards. Post the plan in multiple places around your house for visual reminders.
  - Be consistent!! If you say that a reward is only available if the behavior is performed, you must follow through on that. Give the reward as you promised every time and withhold access to the reward if behavior is not performed
- ★ STEP 5: Praise and expand
  - Praise your child every time they perform a desired behavior. Be specific. "Thank you for using your calm voice." "Good job putting your toys where they belong."
  - When your child learns one behavior, you can increase the difficulty (i.e., requiring the behavior occurs more often to earn a reward) or add new behaviors.

Using Rewards Worksheet

STEP 1: List of desired behaviors

Checklist

_____ ☐ Specific ☐ Simple ☐ Reasonable

_____ ☐ Specific ☐ Simple ☐ Reasonable

_____ ☐ Specific ☐ Simple ☐ Reasonable

_____ ☐ Specific ☐ Simple ☐ Reasonable

_____ ☐ Specific ☐ Simple ☐ Reasonable

STEP 2: Brainstorm rewards

Favorite activities:

_____

_____

_____

Favorite items (i.e., food, toys, etc.):

_____

_____

_____

Other options (i.e., in charge of ____, get out of ____, etc.):

_____

_____

_____

**If you are having difficulty thinking of rewards, ask your child what he/she might want.

STEP 3: Make your plan

How will you keep track of the behaviors?

☐ Reward given immediately ☐ Sticker chart ☐ Note on phone ☐ Other _____

Think about the behavior plan like IF/ THEN statement:
If your child does _____ (behavior),
then they get _____(reward).

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Plan options:

- One behavior for One reward
    - When you see the behavior, you give a reward.
- Points system
    - When your child does the behavior, he/she earns a point.
    - Points can be traded in for rewards.
    - Make a chart of rewards and costs (i.e., 15 minutes extra TV time - 5 points)

Reward	Cost
	____ points
	____ points
	____ points
	____ points

STEP 4: Use this plan

Write it out and post your behavior list and reward options so your child can see!

Example:

Behavior	Points
Put your toys in toy chest	✓✓✓✓
Use calm voice to ask for something	✓✓
Follow instruction the first time	✓✓✓

Behavior	Points

STEP 5: Praise and expand!

Sleep hygiene

Consistency and good sleep habits will help my child fall asleep and stay asleep.

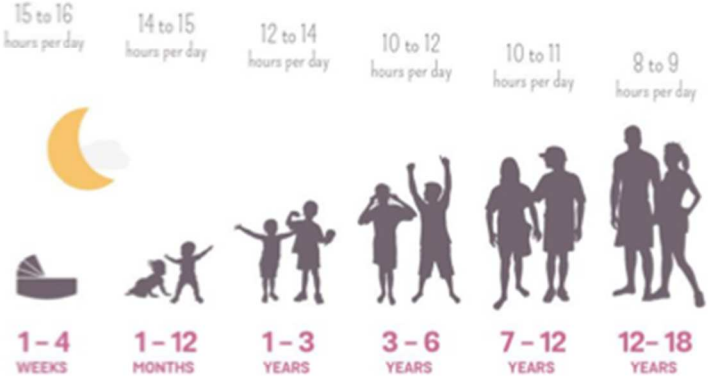
- Assess current sleep habits (i.e., bedtime, wake time, falling asleep independently or with parent, light in room, location of room, nighttime activities, consistency)
- Introduce the impact of consistency on sleep health and work with parent collaboratively to create a sleep schedule that will function for their lifestyle (your goal is not *perfect* sleep schedule but do-able and healthier)
- Emphasize the negative impact of screens before bedtime and discuss ideas for nighttime activities without screens
- Discuss bedroom factors (keeping it dark and cool)
- Discuss potential rewards for good sleep behaviors
  - Particularly important for kids who get up often
- If the child is having trouble falling asleep, you can also draw on the mindfulness for families handout and review PMR
- Session focus will be on developing a do-able plan and increasing family motivation and commitment to sleep plan

★ Ensure parents understand the importance of consistency and routine
★ Assess any parental concerns and be prepared to respond to concerns (i.e., the child won't want to be consistent even on weekends)
★ If only one parent is present, discuss how to get on the same page with other parent/caregiver

- Praise as often as possible
- Use motivational interviewing strategies to increase motivation and compliance with behavioral sleep strategies
- Remind parents to contact the clinic with any questions or concerns

Tips for Better Sleep

★ Create a sleep schedule
- Have a consistent bedtime and wake time
- For weekends or non-school nights, no more than one hour difference in bed and wake times compared to school nights
  - For example: If bedtime is 7:30 on school nights, then stay up no later than 8:30 on weekends
  - If you deviate from your normal routine much more than that it can take weeks to recover.
- How much sleep does your child need?



★ Follow a bedtime routine every evening
- 20-30 minute routine of calming activities in reduced light
- For example:
  - For a 7:30 PM bedtime, start routine at 7:00 PM
  - Dim the lights, turn on lamps, turn off screens
  - Spend some time in a calming activity like talking about the day, reading books, taking a bath, drawing/coloring, etc.
  - Get ready for bed (i.e., pajamas on, teeth brushed, etc.)
    - Be aware of bright bathroom lights
    - Turn on minimum lighting, use soft white bulbs rather than daylight, brush your teeth at the beginning of your routine, etc.
  - Finish routine with calming, quiet activity in bedroom
  - Go to bed

- ★ Nighttime activities
  - Keep away from screens (i.e., phones, computers, tablets, TVs) for 30 minutes before bedtime
  - Reduce high energy activities (like playing outside or exercise)
  - Good nighttime activities could include:
    - Reading together
    - Drawing, coloring, or journaling
    - Meditation or relaxation activity
    - For more nighttime ideas, this blog has suggestions organized by age
      - https://modernparentsmessykids.com/quiet-time-activities-perfect-getting-kids-settle-bed/
- ★ Bedroom factors
  - Keep the room dark
  - Keep the room cool (< 75 degrees)
  - Keep the room safe
    - Don't use the bedroom as a location for punishments such as time outs

When should you get more help?

- ➔ Like most things, developing good sleep habits take time and your child's body will need time to adjust
- ➔ If you have been consistent with routine and sleep/wake times for a few weeks and sleep problems are still occurring, CALL the clinic to help problem solve
  - ◆ Sleep problems could include: significant fatigue during the day, taking a long time to fall asleep, waking up frequently during the night, etc.
- ➔ If the problem gets worse and stays there for 3 or more days, CALL the clinic for additional help

Acute Stress

Increasing emotional and social support for your child can enhance resilience.

This module looks a bit different than other modules. Use this when patient presents under acute stress such as grief, traumatic grief, acute trauma, or stress regarding recent medical diagnosis. The emphasis is less on teaching skills and more on normalization of emotional distress and facilitating social support. Thus, only parents get a handout from this session.

Reminder to conduct a thorough assessment of emotional distress and trauma symptoms to determine appropriate level of care before engaging in brief intervention

- Patient portion:
  - Emphasis on normalization and increased support
- Utilize active listening skills
  - Provide brief emotional psychoeducation
- Emotions are normal and serve a function.
- Based on presenting situation, normalize emotional reaction (i.e., grief following a loss or anxiety following traumatic event)
  - Assess social support and briefly help child come up with behavioral activation ideas
- Parent portion:
  - Begin by briefly assessing parent concerns
  - Use the handout to discuss parent communication skills

- Good questions:
  - What questions do you have?
  - Summarize what we've talked about in your own words.
  - What do you think will be most helpful when you go home?
- Patient key points:
  - Support seeking behaviors and/or normalization
- Parent key points:
  - Active listening and when to reach out if problems persist

- Remember to praise often! Look for opportunities to praise use of coping behaviors or helpful parenting strategies.
- Model active listening strategies with caregiver and practice
- Tips for different ages:
  - Younger children: most of the session will be with parents
  - Older children: divide time between parent and child

How to support your child through a hard time?

- ★ Be available, flexible, and non-judgmental
  - Let your child know that you are available to listen to him/her, sit with him/her, talk through things, or help take his/her mind off of things.
  - Be flexible to meet your child's need(s), even if he/she responds to the emotional stress differently than you
  - Work to re-establish a normal routine
  - Show non-judgmental openness by listening without criticising your child or overreacting. Non-judgmental listening provides your child a safe place to be honest about his/her emotional experience. Remember, you can help your child cope more easily when you have open, honest lines of communication.
- ★ Active Listening
  - The primary goal of active listening is to *UNDERSTAND* your child's experience better. The goal at this stage is not to change his/her thoughts or feelings.
  - Stop doing other things and put aside distractions
  - Get on your child's level
  - Listen and reflect back what he/she is saying
    - For some help with how to reflect, see the CDC guide on active listening
    - https://www.cdc.gov/parents/essentials/communication/activelistening.html
- ★ Encourage social support
  - Provide your child opportunities to engage socially with friends (i.e., invite other kids over to play, go out to eat with friends, go to the park, etc.)
- ★ Behavioral activation
  - When going through a hard time, kids often become less active and engaged. You want to help your child do more stuff!
  - Think about what your child enjoys, what he/she is good at, and what he/she finds meaningful when trying to pick an activity
  - When possible, try to think of activities that get your child up and moving and with other people (family or friends)
- ★ Labeled PRAISE
  - Remember to praise your child for positive behaviors including honesty, sharing his/her emotional experience, asking for help, using coping skills, and more
  - Be specific:
    - For example: "Thank you for calmly telling me how you are feeling" or "Good job asking for help when you felt overwhelmed"
  - Look for frequent opportunities to praise your child's good behavior (Maybe even challenge yourself to find a certain number a day)

General Tips/Reminders for Parents:

- ★ PRAISE effort not success
  - For example: "Good job cleaning your room the first time I asked" or "Thank you for calmly telling me how you are feeling"
- ★ Talk about emotions with your kids
  - Help your kids see that it is good to share what they think and feel
  - For example: "Mama felt (emotion) earlier when (event) happened, so I (took a deep breath, walked away for a minute, thought a different way, etc.) to help"
- ★ Emotional/ behavioral skills take practice like any other skill
  - Give yourself and your child some time to get good at the new skill
  - Try to practice the skill every day
- ★ Give yourself the best chance to succeed
  - Pick a good time to practice the skill when you first start (i.e., your niece's 3rd birthday party is probably not the best time to try these things out)
  - Practice at home at a time when your child is rested and not hungry
  - Start with simple, concrete practices to learn the skill before trying it in harder/more realistic situations
  - Recognize when you need a break or when you are too tired/overwhelmed/busy to really focus on practicing the skill (and make sure you come back to it later)
- ★ When should you reach out for more help?
  - If your child is struggling with big emotions or emotional outbursts:
    - Encourage your child to practice his/her skill daily
    - Prompt your child to use his/her skill when getting upset
    - If he/she is using the skill consistently but still not improving overall, call the clinic so we can help you problem solve
  - If your child is acting out or having behavior problems:
    - You've been practicing the skill discussed and praising good behavior for a few weeks, but no improvement in frequency or severity of problem
    - You're having trouble getting the skills to consistently work when you need them
  - Emotional or behavioral:
    - If your child's problem gets worse or your child tries to hurt him/herself or someone else, CALL the clinic
    - Remember that not all skills work equally well for all kids. If you don't find one that works right away, don't give up! Ask your clinic for more help and they can direct you to a different method

Appendix A: Clinical Interview

1. Why did your mom/dad think you should come to see me?
   a. Do you agree or disagree with Mom/Dad about that?

2. Are there any problems in your life? Is there anything that you are having a hard time with?

3. Help me get to know you a little bit: What kinds of things do you like to do for fun?

4. Tell me about your friends. (Perhaps get a description of one or two individuals.)
   a. How many good friends do you have?
   b. Is it easy to get along with your friends, or is that a problem for you?
   c. Is it easy for you to make friends, or is that kind of hard?

5. Tell me about school.
   a. What grade are you in?
   b. What do you like about school?
   c. What don't you like about school?
   d. Is it easy to pay attention in school, or is it hard to pay attention? (Ask about mind wandering, trouble sitting still, "ants in your pants," boredom.)
   e. Are you in any special classes (gifted or remedial)?

6. Tell me about your home/family (Mom, Dad, sibs, etc.).
   a. Who all lives at home with you?
   b. How do you get along with mom, dad, siblings?
   c. What are the rules/chores in your house?

7. Tell me a bit about how you feel
   a. How do you typically feel?
   b. What makes you happy?
   c. What makes you sad? What do you do when you feel sad? What do your parents do when you feel sad?
   d. What makes you mad? What do you do when you get mad?
   e. What are you scared of?
   f. Are there things you worry about a lot? What do you do when you feel worried?

8. What do you think about yourself? How would you describe yourself? Do you like yourself?
   a. What do you like about yourself?
   b. What don't you like about yourself?
   c. If you could change anything you wanted to about yourself, what would that be?

9. (If there is evidence of depression or suicide risk) Have you ever felt so sad that you kinda wished you were dead?
   a. (If yes) When? Why? What was going on? What were you thinking about?
   b. (If yes to 10) What happened? What did you do?
   c. (If appropriate) Have you ever thought about doing something to hurt yourself or to try to kill yourself? What?
   d. (If yes to c) Do you think you might do something like that? Do you have a plan to do something like that?
   e. (If appropriate) Have you ever done anything to hurt yourself or try to kill yourself? What?

10. Do you ever hear things that other people don't hear? What? When?
   a. Do you ever see things that other people don't see? What? When? (If in bed at night, seriousness may be lessened.)
   b. (If yes to 11) What do the voices say? Who are they?
   c. (If there is a response to b) Do the voices ever tell you to do things? What? Have you ever done what they told you to do? Do you feel like you have to do it?
   d. (If appropriate) Do you think the voices/things you see come from inside your head or from outside you?

11. Are there certain little things that you feel you have to do over and over again?

12. Has anything really bad ever happened to you?

13. Return to any aspects of the presenting problems that have not been adequately covered. Obtain information about problem:
   a. Onset, frequency, duration, intensity
   b. What do you think causes these problems to happen?
   c. What do you think would help the problems get better? What could you do? What could your parents do?

14. Is there anything I haven't asked you about that you'd like to tell me or that is important for me to understand?

Notes:
1. This set of questions is more extensive than what is needed to assess most clients. Use this as a list of options or a menu from which to select interview questions.
2. These questions are worded for children up to the age of approximately 10 years old. More complex language is appropriate for older children and adolescents.
3. For parents, ask questions about behavior problems at home as appropriate

Appendix B: Psychoeducation analogy

Before starting, have a blank piece of paper or whiteboard to write down what the child says.

To help you understand more about emotions, I want you to pretend with me for a minute (for older kids can say we will use an example first).
Imagine that while we are talking, suddenly the door gets knocked in and there's a big bear standing in the door (can have a picture of an angry looking bear).
What goes through your mind when you see the bear?

> (Help guide the child in recognizing thoughts and write them down. Help the child notice the thought that the bear is dangerous. If the child makes a statement like "I need to get away," respond by asking what makes you think you need to get away. When they answer something about danger, you can say "so your first thought is that the bear could hurt you even if you thought that so fast you didn't catch it.")

What would you feel in your body?

> (Help the child recognize feelings like fast heart beat, muscle tension, vision changes, breathing changes, stomach sensations, etc.)

What would you do?

> (Focus the child on behaviors that they could actually do if there was a real bear)

Okay so let's review, the bear is in the door and you thought (summarize thoughts), you felt (summarize feelings), and you did (summarize behaviors). So let's say that none of that worked and the bear now takes a step closer to you and puts a big heavy paw right on your shoulder. What do you think now? (pause to answer) What happens in your body? (pause to answer) What would you do?

> (Write these answers to the left of the first round of responses or in a different color pen to show that it is the second time around. Do this one or two more times until the child has a hard time thinking of anymore thoughts or behaviors)

Sometimes, when in a really scary situation like this bear, you might get so scared that you have a hard time thinking clearly and you might do some things that you wouldn't normally do. When this happens, your triangle has flipped and your feelings are drowning out your thoughts/behaviors.
This makes sense if there's an actual bear in the room, right? When something is dangerous, your body is supposed to get more active and ready to run away or fight.
But what if we noticed a small butterfly sitting on the doorknob (can adjust the image here if insect phobia) and I reacted exactly like you described with the bear. What would you think of me? (Most kids will say things like that wouldn't make sense or i'd think you were weird/crazy)
A lot of the time, when you are really anxious or depressed, you can start getting the bears and butterflies confused. Maybe when (describe personal situation) happens it feels a whole lot like a bear? (pause and let the child react)
I want to help you recognize your thoughts, feelings, and behaviors and question if the situation is really a bear. If it's not, you can learn to change how you think and how you act in situations to help you feel better.

Appendix C: References

Acute Stress Module:

Research on brief interventions for acute stress is limited. To construct this module, a literature search was conducted for interventions and theoretical models related to acute stress reactions. Given the limitations in many of the studies, it was decided that general supportive parenting skills and normalization would be the best course of treatment for a brief intervention. This manual does not utilize psychological debriefing interventions given the evidence against this modality in acute stress.

- Forneris, C. A., Gartlehner, G., Brownley, K. A., Gaynes, B. N., Sonis, J., Coker-Schwimmer, E., ... & Lohr, K. N. (2013). Interventions to prevent post-traumatic stress disorder: a systematic review. *American Journal of Preventive Medicine*, *44*(6), 635-650.

Theoretical articles:

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    - Duncan, L. G., Coatsworth, J. D., & Greenberg, M. T. (2009). A model of mindful parenting: Implications for parent–child relationships and prevention research. Clinical child and family psychology review, 12(3), 255-270.
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- Recommended components: maladaptive thoughts and family support
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VITA

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Clinical Psychology Graduate Student
The University of Mississippi
Department of Psychology

Educational Experience

2016- Present **Doctor of Philosophy, Clinical Psychology**
University of Mississippi
(Anticipated May 2021)
Dissertation: *Integrated psychological services in pediatric primary care: A program evaluation* (Defended May 2020)
Advisor: John Young, Ph.D.

2014- 2016 **Master of Arts, Psychology (Emphasis: Clinical)**
University of Mississippi
Thesis: *Oh, what a tangled web we weave: Cyberbullying, anxiety, depression, and loneliness*
Advisor: John Young, Ph.D.

2010- 2014 **Bachelor of Arts, Psychology (Minor in Religious Studies)**
University of Mississippi
Graduated Summa Cum Laude
Honors Thesis: *The Effect of Auditory Distractions on Working Memory in People Diagnosed with Attention-Deficit/Hyperactivity Disorder*
Honors Advisor: Matthew Reysen, Ph.D.

Certifications & Achievements

08/2016 **Examination for Professional Practice in Psychology (EPPP)**
Passed at doctoral level for all states

Clinical Experience

07/2019- present **Behavioral Health Specialist**
Oxford Pediatric Group (Oxford, MS)
Supervisors: John Young, Ph.D.; James Edward Warrington, III, M.D.; Doug Sanford, M.D.; Molly Singletary, M.D.; Michael Dennis, M.D.

- Provide brief individual interventions for emotional and behavioral difficulties to children, adolescents, and parents
- Conduct psychological evaluations for ADHD, differential diagnosis of psychopathology, and learning disabilities
- Consultations with pediatricians, nurse practitioners, and nurses regarding assessment results, clinical outcomes, continuity of care, referrals, etc.
- Assist with billing procedures

06/2015-present **Graduate Therapist**
Psychological Services Center, University of Mississippi
Supervisors: John Young, Ph.D.; Danielle Maack, Ph.D.; Scott Gustafson, Ph.D., ABPP; Kelly Wilson, Ph.D.; Laura Johnson, Ph.D.

- Conduct initial intake assessments which include general overview of presentation and structured clinical interview (MINI-5, CHIPS, and P-CHIPS)
- Provide individual psychotherapy (ages: 5-74)
- Attend weekly supervision meetings regarding current cases and professional development
- Participate in didactics related to case conceptualization, treatment planning, and implementation of Cognitive Behavioral Therapy, Acceptance and Commitment Therapy, parent training, and behavioral interventions

08/2016-05/2017 **Graduate Psychological Examiner**
Psychological Assessment Clinic, University of Mississippi
Supervisors: Scott Gustafson, Ph.D., ABPP

- Provided comprehensive psychological evaluations to assess for learning disabilities, Attention-Deficit/Hyperactivity Disorder, differential diagnoses of psychopathology
- Participated in weekly supervision meetings focused on case conceptualization and report writing

12/2016- 11/2017 **Psychometrist**
Delta Autumn Consulting (Oxford, MS)
Supervisor: John Young, Ph.D.

- Provided psychological evaluations to assess for learning disabilities, Attention-Deficit/Hyperactivity Disorder, and giftedness at schools within Pontotoc County School District.

- Assessment instruments included: WISC-V, WIAT-III, Conners' CPT-II, ChIPS, P-ChIPS, and clinical interviews with parents, children, and teachers.

07/2015- 06/2016 **Student Intern for Psychological and Behavioral Services**
North Mississippi Regional Center (Oxford, MS)

- Conducted individual psychotherapy
- Conducted social skills group therapy and assist with general mental health group
- Conducted psychological assessments (including intelligence testing, achievement testing, and measures of adaptive functioning); write integrated psychological reports; assist with annual paperwork

Research Experience

2014-present **Graduate Research Assistant (S.I.T.H. Lab)**
Supervisor: John Young, Ph.D.

- Program evaluation of integrated care program:
  - Recruitment of pediatric office for participation in study; acting as program design and implementation coordinator; review data collected through program; provide ongoing feedback to physicians at the pediatric office
- Research projects conducted at local schools:
  - Recruitment of schools to participate in surveys; administration of school wide mental health surveys; data analysis with SPSS; provide routine feedback to school administrators; implementation of cyberbullying intervention program weekly at schools
- Other responsibilities:
  - Assisting in protocol development; preparing lit reviews; mentoring undergraduate research assistants; seek out and maintain community connections for research

08/2012- 05/2013 **Undergraduate Research Assistant**
Supervisor: John Young, Ph.D.

- Administration of structured interviews (ADIS); independently run participants; control and manage data; data analysis with SPSS

08/2012- 05/2014 **Principle Investigator for Honors Thesis**
Supervisor: Matthew Reysen, Ph.D

- Prepared literature review; developed and prepared study protocol; independently run participants; control and manage data; data analysis with SPSS

Teaching Experience

08/2018- 05/2019 **Graduate Instructor, Applied Behavior Analysis**
Department of Psychology, University of Mississippi

- Designed class structure (using interteach methods); selected textbook; prepared syllabus, lesson plans, assignments, and exams; supervised a team of teaching assistants

08/2016- 05/2018 **Teaching Assistant, Graduate Assessment I and II**
Department of Psychology, University of Mississippi

- Provided training sessions on administration of testing materials (WAIS-IV, WIAT-III, KBIT, and WRAT-4); provided real-time supervision for first year graduate students completing practice cognitive assessments; provided written feedback on assessment reports; reviewed and provided feedback to student practice assessment videos (MINI-5, SCID-II, suicide assessments, DIVA, and mental status evaluation)

Volunteer Experience

10/2018- 06/2019 **Behavioral Health Specialist**
Oxford Pediatric Group
Supervisors: John Young, Ph.D.; James Edward Warrington, III, M.D.; Doug Sanford, M.D.; Molly Singletary, M.D.; Michael Dennis, M.D.

- Established integrated psychological services program at Oxford Pediatric Group
- Volunteered 6-10 hours a week for pilot program
- Provided brief individual interventions for emotional and behavioral difficulties to children, adolescents, and parents
- Conducted psychological evaluations for ADHD, differential diagnosis of psychopathology, and learning disabilities
- Consulted with pediatricians, nurse practitioners, and nurses regarding assessment results, clinical outcomes, continuity of care, referrals, etc.
- Assisted with billing procedures
- Following successful implementation of pilot program, Oxford Pediatric Group agreed to fund a formal practicum placement

Publications and Presentations

Johnson, K. (2015). *Oh, what a tangled web we weave: Cyberbullying, anxiety, depression, and loneliness*. Poster presented at the annual convention of the Association of Behavior and Cognitive Therapists in Chicago, IL.

Johnson, K., Sharpe, K., Elligett, E., Young, J. (2016). *It's Cool to Be Kind: A Pilot Study of a Cyberbullying Intervention for Youth.* Poster presented at the annual convention of the Association of Behavior and Cognitive Therapists in New York, NY.

Professional Memberships

February 2019- present
Society of Clinical Child and Adolescent Psychology (SCCAP), Division 53 of the American Psychological Association

November 2014- October 2018
Association for Behavioral and Cognitive Therapies

Selected Honors and Awards

Outstanding student researcher award- Runner-up (2015 ABCT Child and school related issues SIG)
Sally McDonnell Barksdale Honors College Graduate (May 2014)
Psi Chi, The International Honor Society in Psychology (2012- Present)
Recipient of The University of Mississippi Taylor Medal (May 2014)