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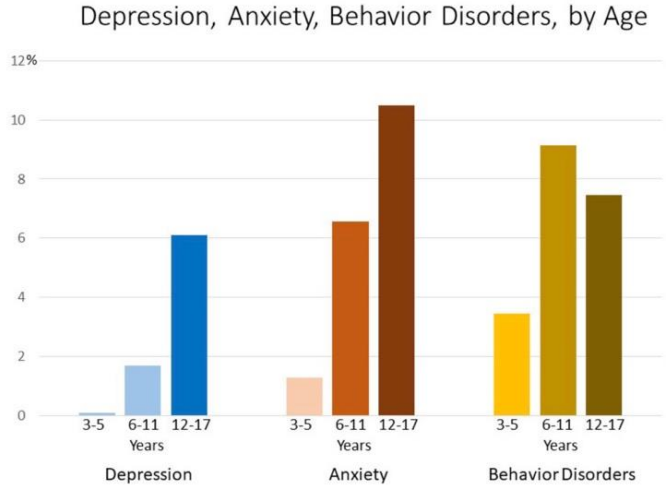
IESD Research White Paper
Research in Support of Effective School Solutions

Research Overview:
Meeting the Mental Health Needs of Students in Schools

Introduction

Emotional and behavioral challenges make it difficult for many children and adolescents to function successfully at school, at home, and in their communities. Research indicates that 20 percent of all children and adolescents have been diagnosed with one or more mental health disorders (Matta, 2014, p. 71, citing multiple sources).

The most commonly diagnosed mental health issues in children and adolescents are behavior problems, anxiety, and depression, and often these conditions occur together (U.S. Centers for Disease Control and Prevention [CDC], 2019). Over the past few decades, there has been an increase in depression and anxiety, and these conditions are being diagnosed at increasingly younger ages. The diagnosis of depression and anxiety is more common with increased age, while behavior challenges are more common for children between the ages of 6 and 11 (CDC, 2019).



U.S. Centers for Disease Control and Prevention (2019)

Researchers have seen a rise in the past few years of adolescents and young adults dealing with serious mental health issues such as major depression and suicidal thoughts and acts (Twenge, Cooper, Joiner, Duffy, Binau, 2019, p. 185).

Addressing the prevalence of mental health issues for children and adolescents is imperative, and increasingly school is seen by experts in the field as an appropriate environment for youth to receive services. Children and adolescents spend a significant portion of their time in school, and educators and specialists are in place to help identify children in need and connect them with services within the school setting (Matta, 2014, p. 1). Shechtman, an expert in group therapy in school settings, notes that schools are a particularly good choice for group therapy because children in schools are naturally organized into groups, and group interventions are seen as a regular component of the school day for students with various needs (Shechtman, 2007, kl. 4413[1]).

About This Paper

The purpose of this paper is to present a review of research on the most effective approaches to treatment of children and adolescents with mental health challenges—globally and specifically in the context of school-based mental health support programs—and then to explain how the Effective School Solutions (ESS) comprehensive therapeutic program aligns with the research.

The remainder of the paper is divided into five sections:

- Research Overview—a concise, top-level summary of the research
- Research in Detail: Therapy for Youth with Serious Mental Health Issues—a detailed presentation of the research
- Research Support for School-Based Mental Health Services
- How the Effective School Solutions Program Aligns to the Research—a point-by-point explanation and description of how the ESS school-based program is consistent with the research on meeting the needs of students with serious mental health issues.
- References—a listing of the research literature cited in the paper

[1] Shechtman (2007) was reviewed in its Kindle edition. Accordingly, all citations refer to "kindle locations" (kl), as the Kindle edition does not use page numbers. All citations are from chapter 16, entitled "What Does the Data Tell Us About Group Counseling? Future Directions."

Research Overview

School-based therapeutic interventions for children and adolescents with serious mental health challenges have been shown to be effective when they incorporate research-validated methods and modalities (Matta, 2014; Rones & Hoagwood, 2000).

- Characteristics of successful school-based programs include: "consistent program implementation"; inclusion of peers, teachers, and families in the therapeutic process; "use of multiple modalities"; integration of the program into the classroom; "developmentally appropriate program components"; and directing program activities "toward changing specific behaviors and skills" associated with the student's mental health challenges (Rones & Hoagwood, 2000, pp. 223, 237-238).
- Research demonstrates that therapy can be effective for treating common, serious mental health disorders in children and adolescents, including depression, self-harm and suicidal behavior, anxiety, PTSD and trauma, conduct disorders, substance abuse disorders, and behavior problems associated with attention-deficit/hyperactivity disorder (Diamond & Josephson, 2005; Jones & Stewart, 2007; Ougrin, Tranah, Stahl, Moran, & Asarnow, 2015; Zhou et al., 2015; Zhou et al., 2018).
- A large body of research supports the use of cognitive behavioral therapy (CBT) for addressing many types of mental health challenges in youth (Diamond & Josephson, 2005; Jones & Stewart, 2007; Ougrin et al., 2015; Shechtman, 2007; Zhou et al., 2015; Zhou et al., 2018). Other therapies with evidence of effectiveness for specific mental health issues include dialectical behavior therapy (DBT), interpersonal therapy (IPT), and mentalization-based therapy (MBT) (Ougrin et al., 2015; Zhou et al., 2015).
- Besides individual therapy, there is strong research support demonstrating the effectiveness of group and family therapy (Diamond & Josephson, 2005; Carr, 2018; Jones & Stewart, 2007; Matta, 2014; Shechtman, 2007; Zhou et al., 2018).

The Effective Schools Solutions (ESS) program is aligned to the research cited above on the most effective approaches to treating mental health disorders in children and adolescents. ESS's school-based services combine individual, group, and family therapy; draw on evidence-based modalities incorporating psycho-educational themes associated with both CBT and DBT; and meet research-based criteria for effective school-based programs.

Research in Detail:
Therapy for Youth with Serious Mental Health Issues

A large body of research demonstrates that therapy can be effective in treating some of the most common and potentially debilitating mental health disorders in children and adolescents. Therapy for the treatment of childhood and adolescent depression (Zhou et al., 2015), self-harm and suicidal behavior (Ougrin et al., 2015), anxiety (Diamond & Josephson, 2005; Zhou et al., 2018), PTSD and trauma (Jones & Stewart, 2007), conduct disorders, substance abuse disorders, and behavior problems associated with attention-deficit/hyperactivity disorder (Diamond & Josephson, 2005) all have strong support from years of rigorous studies investigating different therapeutic approaches.

Effective therapy for mental health challenges in children and adolescents varies by type of disorder, but the largest body of evidence provides strong support for the use of cognitive behavioral therapy (CBT)[2] for addressing many types of mental health challenges in youth. In addition to CBT, there is research support for dialectical behavior therapy (DBT)[3], interpersonal therapy (IPT)[4], and mentalization-based therapy (MBT)[5] for specific mental health issues. Besides individual therapy, group and family therapy have strong research support demonstrating effectiveness. School-based interventions with specific characteristics (discussed later in this paper) have also been shown to be effective. Research findings summarized below are based on large meta-analyses, reviews of research, and in a few cases, rigorous individual studies.

Therapy for Treatment of Depression

Depression is one of the most debilitating and most common mental health disorders affecting youth. Depressive episodes in children and adolescents typically last about nine months, and 70 percent of young people who are in remission from depression will experience another episode within five years (Zhou et al., 2015, p. 207 citing multiple sources). Especially concerning is that childhood depression often goes undetected. Low academic achievement and problems with peer and family relationships are common for youth suffering from depression, and this population is more likely to engage in self-harm or suicidal behaviors (Zhou et al., 2015, p. 207, citing Hawton, Saunders, & O'Connor, 2012).

Clinical practice guidelines recommend psychotherapy for mild to moderate depression in children and adolescents (Zhou et al., 2015, p. 207, citing National Collaborating Centre for Mental Health, 2005; McDermott et al., 2011; Cheung et al., 2007), and roughly 75 percent of adolescents in treatment for depression receive some type of psychotherapy (Zhou et al., 2015, p. 207, citing Olfson et al., 2003).

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[2] **CBT** involves discussion to help patients "identify troubling situations" in their lives; become aware of "thoughts, emotions, and beliefs" about these issues; "identify negative or inaccurate thinking" about the problem(s); and build habits of more helpful thinking about the situation(s). Children learn and practice techniques such as "relaxation, coping [skills], resilience, stress management, and assertiveness" (Mayo Clinic, 1998-2020).

[3] **DBT** is a type of CBT that was "originally developed to treat chronically suicidal individuals diagnosed with borderline personality disorder…. …research has shown that it is effective in treating a wide range of other disorders…. The term 'dialectical' means a synthesis or integration of opposites. The primary dialectic within DBT is between the seemingly opposite strategies of acceptance [of oneself] and [the need to] change…. The four [DBT] skills modules include two sets of acceptance-oriented skills (mindfulness and distress tolerance) and two sets of change-oriented skills (emotion regulation and interpersonal effectiveness)" (University of Washington, Behavioral Research and Therapy Clinics, n.d.).

[4] **IPT** "seeks to activate several interpersonal change mechanisms. These include: 1) enhancing social support, 2) decreasing interpersonal stress, 3) facilitating emotional processing, and 4) improving interpersonal skills" (Lipsitz & Markowitz, 2013).

[5] **MBT** "aims to address what is thought to be BPD [Borderline Personality Disorder] patients' fundamental deficit…. It is rooted in attachment theory… and incorporates the notion that childhood experiences influence the quality of future interpersonal relations…. It is aimed at increasing patients' mentalization skills…." Mentalization skills are defined as "someone's ability to understand their own and others' mental states" (Vogt & Norman, 2019, p.442, citing multiple sources).

Research Support for CBT, IPT, and Family Therapy

In a meta-analysis integrating direct and indirect evidence from 52 randomized controlled studies, researchers analyzed the efficacy of nine psychotherapies for depression in children and adolescents. From this analysis, researchers found that **two treatments—cognitive-behavioral therapy (CBT) and interpersonal therapy (IPT)—were significantly more effective** than most control conditions[6] and also more effective than problem-solving therapy. The researchers concluded that "IPT and CBT should be considered as the best available psychotherapies for depression in children and adolescents" (Zhou et al., 2015, p. 207).

While the research basis is limited, studies indicate that family therapy is showing encouraging results for child and adolescent depression (Diamond & Josephson, 2005, p. 875). There is clear evidence of a strong link between family issues and depression. In a review of rigorous randomized clinical trials, researchers noted a large number of studies indicating that "depression can be precipitated, maintained, or exacerbated by interpersonal relationships" (Diamond & Josephson, 2005, p. 874, citing multiple sources). They found that "[p]arental depression, marital conflict, ineffective parenting practices, loss, negative parent–child interaction, and insecure attachment have been associated repeatedly with… depression" (Diamond & Josephson, 2005, p. 874, citing multiple sources).

Because of this known link between family issues and depression, a growing body of research is investigating combination treatments for youth and families. One study using CBT for children combined with family treatment resulted in reduced symptoms, compared to the children awaiting treatment (Diamond & Josephson, 2005, p. 875, citing Clarke et al., 1999). Another study investigated a 12-week family treatment program, and findings indicated a remission of symptoms for 84% of the adolescents treated, compared to 36% of the patients waitlisted for the program. This 12-week program also resulted in "more significant reductions in anxiety, hopelessness, and family conflict and improved attachment to parents" (Diamond & Josephson, 2005, p. 875, citing Diamond et al., 2002).

Therapy for Treatment of Suicide and Self-Harm

Suicide and self-harm are common among adolescents, with a "pooled lifetime prevalence of 13.2%" (Ougrin et al., 2015, p. 97). Suicide is considered a "major public health concern" and is "the second or third leading cause of death in adolescents in the West" (Ougrin et al., 2015, p. 97, citing National Action Alliance for Suicide Prevention, 2014; Hawton et al. 2012). Despite the differences between self-harm and suicide attempts[7], students who have either engaged in self-harm or attempted suicide are at risk for committing suicide (Whitlock & Lloyd-Richardson, 2019). Self-harm and suicide attempts are "among the strongest predictors of death by suicide" for this population, and these two indicators increase the risk of death by suicide "approximately 10-fold" (Ougrin et al., 2015, p. 97 citing Hawton & Harriss, 2007; Brent et al., 2013).

Research Support for DBT, CBT, and MBT

A meta-analysis of randomized controlled trials evaluated common therapeutic interventions in reducing both suicidal behavior and non-suicidal self-harm in more than 2,000 children and adolescents. They found that for studies comparing specific therapeutic interventions versus treatment as usual or placebo, **interventions "with the largest effect sizes were dialectical behavior therapy (DBT), cognitive-behavioral therapy (CBT), and mentalization-based therapy (MBT)**" (Ougrin et al., 2015, p. 97).

[6] Standardized mean differences (SMDs) ranged from 0.47 to 0.96 initially, and SMDs ranged from 0.26 to 1.05 at follow-up.

[7] Self-harm, also known as "non-suicidal self-injury," includes behaviors such as "cutting, burning or scratching" that cause bleeding. These behaviors are intended to make the person feel better and typically cause only surface damage to the body that is infrequently life-threatening. In contrast, suicide attempts are intended to "end feeling (and, hence, life) altogether," in response to a higher level of psychological distress (Whitlock & Lloyd-Richardson, 2019).

Therapy for Treatment of Anxiety Disorders

Anxiety is one of the most common mental health challenges for children and adolescents in the U.S. Approximately 4.4 million children aged 3-17 years have been diagnosed with anxiety (CDC, 2019, citing Ghandour et al., 2018). The National Comorbidity Survey Adolescent Supplement estimated that 31.9% of adolescents (aged 13-18) have an anxiety disorder (National Institute of Health, 2017a).

Research Support for CBT and Family Therapy

In a recent meta-analysis of research on individual and group therapy for anxiety disorders in children and adolescents, researchers compared and ranked different treatment interventions. Studies chosen for the meta-analysis were randomized clinical trials using comparison to a control condition or to another type of therapy.

Findings based on 101 unique trials involving 6,625 participants indicated that most psychotherapies "were significantly more effective than the wait list condition posttreatment[8] and at the longest follow-up."[9] In ranking the therapeutic approaches, they found that **group CBT was "significantly more effective than the other psychotherapies and all control conditions** posttreatment."[10] The researchers noted that "in terms of quality of life and functional improvement, CBT delivered in different ways was significantly beneficial compared with psychological placebo and wait list conditions (Zhou et al., 2018, p. 41). The researchers concluded that group CBT would be the "more appropriate choice of psychotherapy for anxiety disorders in children and adolescents" (Zhou et al., 2018, p. 41).[11]

Observational studies have noted a strong link between family dynamics and anxiety in children. Specific family risk factors linked to anxiety disorders in children include overly controlling and overprotective parenting and "parental modeling, or reinforcing, of anxious or avoidant behaviors" (Diamond & Josephson, 2005, p. 876).

Findings from several studies have produced **evidence of effectiveness of family therapy in the treatment of anxiety** in children and adolescents:

- One study found that CBT treatment combined with a behavioral family intervention resulted in 84% of youth in the combined treatment no longer meeting established criteria for an anxiety disorder, compared to 57% of youth who were treated with CBT alone. The combined treatment approach continued to show an advantage in outcomes at 6-month (84% versus 71%) and 12-month (96% versus 70%) follow-up periods (Diamond & Josephson, 2005, p. 876, citing Barrett et al., 1996).
- Another study comparing parent and child concurrent CBT group interventions for anxiety with a control group of waitlisted families found that post-treatment, 64% of the treated patients were in recovery, whereas 12.5% of the control group were in recovery. These results were maintained in a 12-month follow-up (Diamond & Josephson, 2005, p. 877, citing Silverman et al., 1999).
- A third study examined the efficacy of CBT with parent involvement for anxiety-based school refusal. King et al. (1998) provided a 12-session treatment intervention divided between child sessions, parent sessions, and one session for the teacher. Findings indicated that children participating in this intervention showed higher rates of school attendance (88%), compared to the control group who were on a waitlist for treatment (29%) (Diamond & Josephson, 2005, p. 877, citing King et al., 1998).

[8] Standardized mean difference (SMD): −1.43 to −0.61.
[9] SMD: −1.84 to −1.64.
[10] SMD: 0.73 to 1.99.
[11] Trials of combination therapies were excluded from this meta-analysis (Zhou et al, 2018 p. 42).

Therapy for Treatment of PTSD and Trauma

Trauma estimates range from 3 to 15% of girls and 1 to 6% of boys meeting the full criteria for post-traumatic stress disorder (Jones & Stewart, 2007), with "an estimated 5.0% of adolescents" having PTSD (National Institute of Health, 2017b, citing Merikangas et al., 2010).[12] Researchers found that even though not all children who experience trauma will then be diagnosed with PTSD, they may still experience dysfunction to some degree in terms of emotional, cognitive, or behavioral responses (Jones & Stewart, 2007, p. 224). In a review of several studies on the prevalence of trauma exposure to children and adolescents, trauma rates were estimated to be between 40% and 70% (Jones & Stewart, 2007, p. 223, citing Feeny, Foa, Treadwell, & March, 2004).

Research Support for CBT, Group Therapy, and Family Therapy

For children experiencing trauma at any level, therapeutic intervention has been found to be beneficial in minimizing physiological and psychological dysfunction (Jones & Stewart, 2007, p. 224). More specifically, research provides evidence supporting CBT-based interventions, often in a group setting.

In a review of four controlled studies, Cohen found that **three of the four studies demonstrated evidence in favor of CBT interventions** that include "relaxation, desensitization, and other behavioral techniques and cognitive restructuring": such interventions were effective in reducing the symptoms of PTSD (Jones & Stewart, 2007, p. 226, citing Cohen, 1998). Four later studies reviewed by Feeny provide **evidence of the efficacy of group CBT with children and adolescents**, with each study showing significant decreases in PTSD symptoms (Jones & Stewart, 2007, p. 226, citing Feeny et al., 2004). Researchers conclude that though studies have been limited in number and size, overall, they suggest that results are promising both for the use of a group modality to address PTSD and the benefits of the CBT approach. (Jones & Stewart, 2007, p. 226).

In a separate study investigating the use of a group CBT-based protocol combined with other treatments addressing anxiety and disruptive behavior disorder, researchers found significant improvements in PTSD symptoms, anxiety, depression, and anger, as well as a shift from external to internal locus of control. The findings were still significant in a 6 month follow-up (Jones & Stewart, 2007, p. 227).

In addition, based on their meta-analysis of therapy for youth with PTSD, **Feeny et al. concluded that when possible, parents should be included in the treatment** (Jones & Stewart, 2007, p. 226, citing Feeny et al., 2004).

Research Support for Group Therapy for Children and Adolescents

While some of the research reviewed for this paper included both individual therapy and group therapy in the analyses, several studies have focused specifically on group therapy for youth experiencing mental health disorders.

Reviews of early research indicate **encouraging results for group therapy for children and adolescents** (Shechtman, 2007, kl. 4621, citing multiple sources). These reviews covered a broad span of types of group therapy, with the dominant treatment being CBT (Shechtman, 2007, kl. 4621).

[12] Trauma is defined as "an emotional response to a terrible event," including an accident, a natural disaster, a school shooting, or childhood abuse (American Psychological Association, 2020). Post-traumatic stress disorder (PTSD) is "a disorder that develops in some people who have experienced a shocking, scary, or dangerous event" (National Institute of Mental Health, 2017b). PTSD symptoms in children include reliving a traumatic event repeatedly, nightmares and difficulty sleeping, "lack of positive emotions," "intense ongoing fear or sadness," outbursts of anger, and "acting helpless, hopeless, or withdrawn" (Centers for Disease Control and Prevention, 2019).

A more recent meta-analysis included studies from 1997 to 2012 and investigated the effects of group therapy in a school environment compared to control treatment (i.e., no treatment) and/or alternative treatments. **The results indicated that group therapy is effective in addressing the mental health needs of youth within a school setting**, with a medium between-group effect size compared to control conditions, and a small effect size comparing group treatment to alternative treatments (Matta, 2014, p. i).[13] Positive effects for group therapy were found irrespective of group size (5 and larger) and number of treatment sessions (between 3 and 30) (Matta, 2014, p. 62).

Research Support for Providing Family Therapy for Children and Adolescents

Family-based treatments are "attempt[s] to decrease interactions between family members that contribute to psychiatric disorders in children and adolescents and to increase interactions that protect them from these problems." Family-based approaches are supported by established research connecting the quality of family relationships with negative or positive impacts on the psychological health of children and adolescents (Diamond & Josephson, 2005, p. 872).[14]

Researchers have concluded that family therapy is effective for the majority of mental health disorders in children and adolescents, and the efficacy of family-focused treatments has been confirmed in several research reviews (Diamond & Josephson, 2005, p. 873, citing multiple sources). **Several meta-analytic studies have found that therapies involving parents were "significantly more effective than no treatment and at least as effective as other forms of psychotherapy"** (Diamond & Josephson, 2005, p. 873 citing multiple sources). [15]

Carr (2018) reviewed twenty meta-analyses on the efficacy of family therapy and family-based approaches to assist in the treatment of common mental health problems in children and adolescents, and concluded:

> "The **evidence supports the effectiveness of systemic [family] interventions either alone or as part of multimodal programmes** for …recovery from child abuse and neglect; conduct problems, emotional problems, eating disorders, somatic problems, and first episode psychosis" (Carr, 2018, p. 153).

For example, in one study included in Carr's review, researchers found that family therapy interventions resulted in the average treated family faring "better after therapy and at follow up than in excess of 71 per cent of families in control groups" (Carr, 2018, p. 154, citing Shadish & Baldwin, 2003).[16] Another later study cited by Carr indicated that family therapy can be more effective than no treatment and other interventions, right after treatment and at follow-up (Carr, 2018, p. 154, citing Riedinger et al., 2015).[17]

In a separate meta-analysis, researchers analyzed 10 years of randomized clinical trials where parents were included as primary participants in treatment related to their child's psychiatric disorder. These

[13] Reported effect sizes were *winsorized*, a method of dealing with outliers in the data distribution. Winsorization involves converting the value(s) of high outlier data points to the value of the highest data point not considered an outlier (Salkind, 2010). The medium winsorized overall between-group effect size comparing group treatment to control treatment was $M = 0.51$, $SD = 0.59$. The small effect size for studies comparing group treatment conditions to alternative treatment conditions was $M = 0.32$, $SD = 0.46$ (Matta, 2014, p. i).

[14] Researchers posit that healthy child development occurs when parenting practices are effective, nurturing, and provide for "secure attachment relationships." On the other hand, childhood psychological dysfunction can occur when parents are suffering from mental disorders or frequently exhibit negative emotions, when there is marital or family conflict, and when coercive parenting practices are used (Diamond & Josephson, 2005, p. 872, citing multiple sources).

[15] Overall effect size was 0.53.

[16] Average effect size across all meta-analyses was 0.65 after therapy and 0.52 at six to twelve month follow up.

[17] Small to medium effects in comparison with waiting-list control groups after treatment ($g = .59$) were found and at follow up ($g = .27$).

researchers concluded that family interventions were effective with conduct and substance abuse disorders and in reducing family and school behavior problems associated with attention-deficit/hyperactivity disorder. Several studies included in the analysis provided **evidence that family treatments or other treatments combined with family therapy are effective for depression and anxiety.** Involving parents in treatment can help improve a "negative family environment" and help increase "treatment engagement, retention, compliance, effectiveness, and maintenance of gains" (Diamond & Josephson, 2005, p. 872).

Effectiveness of Family Therapy for Anxiety in Children and Adolescents

Family therapy can be especially effective for treating anxiety in children and adolescents. Due to a confirmed link between family environment and anxiety in children, researchers postulate that addressing family dynamics can help alleviate anxiety in youth. (Diamond & Josephson, 2005, p. 876). As detailed earlier in this paper, findings from **several studies confirm that family therapy or family involvement in treatment combined with a CBT intervention for the child is effective in the treatment of childhood anxiety** (Diamond & Josephson, 2005, pp. 876-877, citing multiple sources).

Research Support for School-Based Mental Health Services

Quantitative research reviews indicate that school-based interventions are an effective approach for addressing mental health issues in youth. Prout and Prout analyzed data from 17 studies in order to evaluate 25 treatment designs and found a **large overall effect for school-based interventions**[18] (Matta, 2014, p. 7, citing Prout & Prout, 1998). Another large study of school-based therapy interventions included data from 65 dissertations that assessed program effectiveness, yielding a moderate overall effect size [19] (Matta, 2014, pp. 7-8, citing Reese et al., 2010).

Group Therapy in the School Setting

Three reviews of the literature on group therapy indicate that approximately 75% of group therapy for children and adolescents takes place in schools (Shechtman, 2007, kl. 4413, citing multiple sources). As noted earlier in this paper, schools are considered a good choice for group therapy because schools regularly organize students for "group interventions as a part of their daily routine" (Shechtman, 2007, kl. 4413). **Research has confirmed that group therapy is effective in addressing the mental health needs of youth within a school setting** (Matta, 2014, p. i).[20]

Characteristics of Impactful School-Based Programs

A synthetic review of studies over a 15-year period that met rigorous research criteria identified a robust group of school-based mental health programs with evidence of effectiveness for a wide range of disorders. This research review selected 47 rigorous studies[21] for further analysis out of a pool of 5,128 studies. The researchers concluded that the following characteristics were found in effective school-based programs:

- "Consistent program implementation"
- "Inclusion of parents, teachers, [and] peers" because they are parts of the "ecology of the child"
- "Use of multiple modalities" that are "linked to the target problem"
- "Integration of program content into general classroom curriculum"
- "Developmentally appropriate program components," taking into consideration the ages of the participating students
- "[D]irected toward changing specific behaviors and skills" associated with the student's mental health challenges (Rones & Hoagwood, 2000, pp. 223, 237-238).

[18] An overall effect size of 0.97 was found for school-based interventions.
[19] Effect size was 0.44.
[20] Reported effect sizes were *winsorized*, a method of dealing with outliers in the data distribution. Winsorization involves converting the value(s) of high outlier data points to the value of the highest data point not considered an outlier (Salkind, 2010). The medium winsorized overall between-group effect size comparing group treatment to control treatment was $M = 0.51$, $SD = 0.59$. The small effect size for studies comparing group treatment conditions to alternative treatment conditions was $M = 0.32$, $SD = 0.46$ (Matta, 2014, p. i).
[21] Studies were selected based on their use of randomized, quasi-experimental, or multiple baseline research design; inclusion of a control group; use of standardized outcome measures; and baseline and postintervention outcome assessment (Rones & Hoagwood, 2000, p. 223).

How the Effective School Solutions Program Aligns to the Research

Effective Schools Solutions (ESS) has pioneered a unique, evidence-based approach to providing comprehensive, school-based therapeutic services for students with emotional and behavioral challenges. The program begins with a bio-psycho-social assessment completed with both the student and his/her parent or guardian, so that ESS can develop an individualized treatment plan tailored to each student's need. Each plan reflects ESS's alignment to the research presented above on the most effective approaches to treating mental health disorders in children and adolescents. As described below, the ESS program combines **individual, group, and family therapy**; draws on **evidence-based modalities incorporating psycho-educational themes associated with both CBT and DBT**; and **meets research-based criteria for effective school-based programs**.

The ESS program combines individual, group, and family therapy.

Individual Therapy

ESS's highly qualified, licensed mental health professionals provide individual therapy for each student on a regular basis. Individual sessions often focus on the student's current mental health issues and/or their development of skills introduced in group sessions. ESS therapists also provide urgent sessions as needed for students in crisis, any time during the school day. During urgent sessions, real-time stressful events are reviewed, and students are helped to gain insight in how their behaviors and choices impact themselves and others.

Group Therapy

Group work is an important part of the ESS program and is a powerful tool to create change. Groups meet regularly during the school week. They are organized based on the age and grade of the students to ensure that each group is developmentally appropriate. Groups focus on talking through student problems and on evidence-based skills that help youth meet their mental, emotional, and behavioral challenges. Several curriculum options are available, including the following:

- The **Choose Love Enrichment Program™ (CLEP)** was designed for PreK through grade 12 and teaches children understanding and management of emotions, decision-making skills, awareness of themselves and others, and in general, how to be compassionate, loving people. The program focuses on four important character values—courage, gratitude, forgiveness, and compassion in action—to cultivate optimism, resilience, and personal responsibility. Students also learn about positive psychology, mindfulness[22], and neuroscience. Children develop the understanding that they always have a choice in how they respond to personal challenges and that they can choose to love themselves and others.
- **Superflex®: A Superhero Social Thinking Curriculum** offers a motivating way to teach students in grades K-5 with social and communication difficulties through comic books. The program introduces Superflex, a social thinking superhero who uses flexible thinking and self-regulation and social interaction strategies to help the citizens of Social Town outsmart the team of Unthinkables—characters that represent various negative ways of thinking and behaving that interfere with successful social thinking and social interaction. Each Superflex adventure features a recurring Five Step Plan:
  1. Stop, decide, and describe the kind of negative thinking that is overpowering a person.
  2. Stop and observe to look for clues to help understand the situation and the people in it.

[22] *Mindfulness* is the practice and developing habit of "maintaining a moment-by-moment awareness of our thoughts, emotions, bodily sensations, and surrounding environment with openness and curiosity." Research on teaching mindfulness to youth has found positive outcomes with respect to emotional regulation, anxiety and stress reduction, reduction in symptoms of PTSD, and reduction in depression (Mindful Schools, 2010-2019, citing multiple sources).

3. Stop and think to discover the hidden rules of the situation.
4. Use flexible thinking to determine strategies for doing what's expected and to make the best choice for the specific time and situation.
5. Use self-talk to get help from one's inner brain coach.

- **Coping CAT** is a cognitive behavioral treatment for children and adolescents with anxiety. The program incorporates four components:
  1. Recognizing and understanding emotional and physical reactions to anxiety
  2. Clarifying thoughts and feelings in anxious situations
  3. Developing plans for effective coping
  4. Evaluating performance and giving self-reinforcement

Family Therapy and Support

Working with the families is an essential part of the services ESS offers to assist students in making behavioral changes. The importance of parent participation is emphasized beginning with the initial contact, at the assessment, and throughout the student's enrollment in the program.

There are two core components of ESS's work with families:

- Regular **family sessions**, where parents are guided to maintain a positive relationship with their child while addressing the child's recurring problem behavior(s) and any possible trauma. During these sessions, the family learns coping skills so that these can be reinforced at home.
- A **parent support group** that creates a vital support network for participating families. This support group provides parents with a comprehensive psycho-educational curriculum.

In addition, ESS provides a monthly parent newsletter, *Solutions*. Each issue highlights an important topic related to children's mental health issues and provides practical applications for parents in the home environment.

The ESS program draws on evidence-based modalities.

Incorporated in all ESS therapies are psycho-educational themes associated with both cognitive behavioral therapy (CBT) and dialectical behavioral therapy (DBT). The focus of both of these therapies is to help students better regulate their emotions, leading to better choices and outcomes of their behavior. These therapies involve discussion to help students identify troubling situations in their lives; become aware of their thoughts, emotions, and beliefs about these issues; identify negative or inaccurate thinking about the problem(s); and build habits of more helpful thinking. Children learn and practice techniques such as relaxation, mindfulness, coping skills, resilience, stress management, and assertiveness. For children at risk of suicide or self-harm, therapy attempts to integrate two seemingly opposing ideas: the need to accept oneself and the need to change negative behaviors.

Often these themes are integrated into the classroom with teachers and into the family therapy sessions so that everyone working with the student has a common language and set of skills.

The ESS program meets research-based criteria for effective school-based programs.

The ESS program is implemented with consistency.

All programs provided by ESS feature two layers of supervision to ensure consistent, high quality services: (1) a supervisor who oversees the program and its staff, and (2) Quality Management (QM) review of program implementation. Together, these ensure that the service adheres to ESS high standards and protocols.

The ESS program involves parents, teachers, and peers—and other stakeholders.

ESS ensures the greatest impact and chance of success with its students by working with the greatest number of relationships that students have within their lives. These include parents, school administrators, teachers, school aides, fellow students, other mental health providers, state/county children's division staff, and juvenile justice officials. These relationships are supported with counseling, strategic meetings, and sharing of information throughout each student's participation in an ESS program. Included in ESS's communication to key stakeholders are two newsletters: *Insights* for teachers and administrators, and *Solutions* for families.

The ESS program incorporates multiple modalities.

Student growth and development is strongly supported by ESS's unique integration of evidence-based individual, group, and family treatment modalities.

The ESS program is tailored to the age range of the students, to ensure that it is developmentally appropriate.

ESS offers clear protocols for each school level to ensure that all modalities are developmentally appropriate for elementary, middle school, and high school students.

The ESS program addresses the needs of students with specific mental, emotional, and behavioral challenges.

ESS admits *only* students with a serious, diagnosable mental health disorder. Below is a list of disorders and symptoms that the ESS program treats:

- Depression
- Suicide
- Self-Harm
- Anxiety Disorders and School Avoidance
- PTSD and Trauma (following the ESS **Trauma Attuned™** model)
- Behavioral Issues
- Autism Spectrum Disorders

Treatment within ESS is tailored to the specific mental, emotional, and behavioral challenges of each child.

The ESS integrates its program content focused on mental and emotional health into the classroom.

As part of its comprehensive service to districts, ESS offers professional development for district staff, including training sessions, side-by-side teacher coaching, and classroom observations. The approach is to help build capacity by increasing educators' knowledge and skills with respect to mental health and social-emotional learning, thus changing teacher behavior in the classroom. District staff also learn strategies to increase students' sense of connectedness to their school.[23] This approach helps ensure that the ESS program has the greatest impact on the greatest number of students.

[23] According to the American Psychological Association (APA), school connectedness is "the belief held by students that adults and peers in the school care about their learning as well as about them as individuals." The APA cites research

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