

# EVIDENCE FOR THE IMPLEMENTATION OF LIFE BEHAVIORAL SKILLS TRAINING IN THE K-12 CURRICULUM

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#### INFORMATION

Keywords: Life Behavioral Skills Training LifeBST Dialectical Behavioral Therapy Suicidal Ideation Non Suicidal Self Injury DBT BPD BD ADHD SI NSSI

#### ABSTRACT

LifeBST is based on skills only DBT and adapted as needed to ensure the skills taught are age appropriate. DBT is effective in treating those suffering from suicidal ideation, non suicidal self injury, borderline personality disorder, post-traumatic stress disorder, cluster B personality disorder, attention deficit hyperactivity disorder, major depression, bipolar disorder, transdiagnostic emotion dysregulation, pre-adolescent children with severe emotional and behavioral dysregulation, binge eating disorder, and bulimia nervosa. Studies show that not only is DBT effective in treating these mental illnesses, but the skills training portion is particularly effective in preventing future mental illnesses in those receiving DBT based treatment. Furthermore, studies also suggest that DBT based skills training also decreases future mental illness and increases resiliency in those who do not exhibit previous signs of mental illness. This evidence supports the implementation of LifeBST as a normal part of the K-12 curriculum.

# BACKGROUND

LifeBST is a K-12 curriculum that is an initiative of Families Renewed, Inc., as a part of its Self Harm and Suicide Prevention program. The curriculum is based on the skills portion of Dialectical Behavioral Therapy (DBT). The skills are adapted to ensure they are age appropriate. LifeBST will be provided to public schools, private schools, and home school programs at no cost including training and support for educators, administrators, and parents. In addition, it is designed in such a way that it can be implemented without the direct involvement of mental health professionals. This is to minimize financial, professional, and logistical barriers to implementation, and to ensure consistency in content and quality across disparate school systems. Once the K-12 curriculum is implemented, Families Renewed, Inc., intends to develop a curriculum for institutions of higher learning to reinforce the skills taught in the K-12 curriculum.

It is expected that early adoption and implementation of LifeBST will lower the incidence of self harm and suicidal ideation in the 10 to 24 year old age range. Once there is a positive impact in our target age range, there will be cascading positive effects in all adult age groups. In addition, the collateral benefits in mental health and behavioral impediments to learning will have a positive effect in the classroom improving the student's ability to learn and the educator's ability to control classroom behavior. These collateral benefits will also serve as a valuable adjunct or tool for many medicated and unmedicated students diagnosed with ADHD, emotional and behavioral dysregulation, major depression, anxiety disorder, and may also have the benefit of decreasing school violence<sup>1</sup>.

# THE NEED

Suicide is the second leading cause of death among 10 to 24 year-olds with death by accident being the first leading cause in the same age group. With high risk behavior being common among those who suffer with suicidal ideation it is likely that some deaths by accident are actually suicides in disguise.

While suicides grab the headlines nationwide, self harm, also known as non suicidal self injury (NSSI), is actually more prevalent in teens and young adults. Before the beginning of the pandemic, sixty percent of school aged children between the ages of 10 and 18 had engaged in self harm at least once. Fifty percent of school aged children in the same age group had engaged in self harm on a regular and continuing basis. It is difficult to get accurate statistics from after the start of the pandemic. However, we do know that during the pandemic the incidence of suicidal ideation, self harm, and other mental health issues increased dramatically. While self harm is not an accurate indicator of future suicide attempts those who self harm are at increased risk of substance abuse and suicide.

In the United States, more than 90% of all suicides are associated with some form of mental illness or alcohol or substance abuse. Between 30% and 90% involve depressive disorders. Personality disorders are found in 30% of suicides while 20% of suicides involve anxiety disorders including PTSD. About 20% to 25% of all suicides involve alcohol. Many individuals have multiple concurrent diagnoses<sup>2</sup>. It has been our experience that the trifecta of BPD, depressive disorders, and anxiety disorders are the most common comorbidities found in individuals who engage in self harm or suffer from suicidal ideation, often in combination with PTSD. There is a close correlation between BPD and suicidal ideation, in fact BPD is one of only two diagnoses where suicidal behavior is listed as a symptom in the Diagnostic and Statistical Manual of Mental Disorders published by the American Psychiatric Association. The other disorder that includes suicidal behavior as a symptom is Major Depressive Disorder.

#### DIALECTICAL BEHAVIORAL THERAPY

It is believed that BPD is caused by a combination of biological factors and traumatic life events often encountered in childhood. There are conflicting physical studies comparing the brains of individuals with BPD with individuals without BPD. Specifically, physical differences in the brain were documented in the amygdala, insula, posterior cingulate cortex, hippocampus, anterior cingulate cortex, orbital frontal cortex, dorsal lateral prefrontal cortex, and the ventral lateral prefrontal cortex. While there are physical differences in the brain, many of those differences, specifically hyperactivity of the amygdala, are attenuated through emotion regulation skills found in DBT<sup>3</sup>.

In addition, DBT is also effective in treating the emotional and behavioral aspects of BPD with the key component of DBT being the skills component. In fact, DBT with skills or the skills component alone have consistently been attributed to better outcomes. Specifically, for self harm, standard DBT and DBT skills training with case management (DBT-S) had better outcomes than DBT individual therapy plus activities (DBT-I).  $F_{1,85} = 59.1$  [P < .001] for standard DBT and  $F_{1,85} = 56.3$  [P < .001] for DBT-S vs. DBT-I which showed no improvement. The same is true for depression ( $t_{399} = 1.8$  [P = .03] for standard DBT and  $t_{399} = 2.9$  [P = .004] for DBT-S), and anxiety ( $t_{94} = -3.5$  [P < .001] and DBT-S ( $t_{94} = -2.6$  [P = .01]). Again, in both cases there was no improvement in the DBT-I group.<sup>4</sup>

When compared to Standard Group Therapy (SGT), DBT-S demonstrated lower drop out rates (34.5% with DBT-S vs. 63.4% with SGT) and was superior to SGT in improving depression, anxiety, irritability, anger, and affect instability. DBT-S also reduced general psychiatric symptoms as well<sup>5</sup>.

In the absence of healthy coping strategies in adolescents when they encounter traumatic life events these adolescents often adopt maladaptive coping strategies such as behavioral disengagement (avoidant coping) and self blame (emotion focused coping). These strategies are predictive of increased depression. Depression and emotional support use are predictive of increased suicidal ideation. Where these maladaptive coping strategies are present, simply introducing healthy coping strategies are not enough. It is likely that teaching healthy coping strategies should be combined with eliminating the maladaptive coping strategies<sup>6</sup>. It is for this reason the LifeBST curriculum attempts to preempt the adoption of maladaptive coping strategies.

DBT skills are also effective in reducing depression even in instances where pharmacologic intervention has failed. In a 2007 study involving individuals suffering from treatment resistant depression. After 16 weeks the skills training group demonstrated significantly greater improvements in depressive symptoms as compared to the control group. The mean score on the Hamilton Rating Scale for Depression (HAM-D) in the control group at week 16 was 17.11 (SD = 6.23) which indicates the control group was still experiencing moderate levels of depression. The mean score on HAM-D in the skills group at week 16 was 11.3 (SD = 5.31) which is consistent with partial response or remission. There were three participants in the skills group that scored less than seven indicating full remission<sup>7</sup>.

# COLLATERAL BENEFITS OF DBT

DBT skills have also been effective in treating mental health conditions that impede learning in the classroom. While for the purposes of this paper we consider these collateral benefits, the fact that these skills can improve classroom comprehension for students and classroom control for the teacher underscores how well suited and relevant these skills are for teaching in the classroom as a normal part of the curriculum.

One of the most common impediments to learning in the classroom is ADHD. There have been very few randomized controlled trial on DBT in the treatment of ADHD. However, one such trial was conducted in 2014 with college students in the 18 to 24 year old age group. The students were randomized to participate in an eight week DBT skills group training, or to receive a skills handout. ADHD symptoms, executive functioning (EF) and related outcomes were assessed at baseline, at the end of the eight week training period, and again three months post training. The students participating in the DBT skills group training responded much better than the students who received the skills handout. The treatment response rate for the DBT skills group was 59-65% vs. 19-25% for the handout group. The clinical recovery rate for ADHD symptoms and EF was 53-59% vs. 6-13%. The DBT skills group also showed greater quality of life improvements when compared to the handout group<sup>8</sup>.

In 2011 a trial was conducted on the effects of structured DBT skills training vs. a loosely structured discussion group. The loosely

structured discussion group was considered the control group in this study. The study found that DBT skills training was well tolerated and an effective treatment for ADHD<sup>9</sup>.

School violence is a political and social hot button topic with school shootings grabbing the headlines. DBT skills training has been shown effective in reducing violent behavior and delinquency in the school setting. In 2006 a study was conducted in New York to assess if teaching DBT based skills would reduce violent behavior and delinquency. The hypothesis was that since previous studies demonstrated that a comprehensive prevention approach (teaching DBT based skills) targeting school aged adolescents reduced tobacco, alcohol, and illicit drug use in schools, that a similar approach could be used to decrease violent behavior and delinquency.

The study evaluated the sample as a whole (the full sample) as well as evaluating a subset of the sample that received at least half of the training (the fidelity sample). The study found that for the full sample, the training reduced delinquency in the past year (OR=.684, 95% CI=.477, .982, p<.039), frequent fighting in the past year (OR=.742, 95% CI=.566, .972, p<.030), and frequent delinquency in the past year (OR=.643, 95% CI=.478, .867, p<.004). The study found that the fidelity sample demonstrated significant improvements in not only the delinquency in the past year (OR=.537, 95% CI=.360, 700 = .002).

.799, p=.002), frequent fighting in the past year (OR=.559, 95% CI=.397,

.786, p<.001)<sup>\*</sup>, and frequent delinquency in the past year (OR=.540, 95% CI=.322, .907,p<.020)<sup>\*</sup> metrics, but also in physical aggression in the past month (OR=.501, 95% CI=.374, .671, p<.001), violence in the past year (OR=.525,

95% CI=.374, .736,p<.002), frequent verbal aggression in the past month (OR=.503, 95% CI=.305, .830, p<.007)<sup>\*</sup>, and frequent physical aggression in the past month (OR=.614, 95%

CI=.444, .849, p < .003)<sup>\*</sup>. Clearly the school-based prevention approach that reduced tobacco, alcohol, and illicit drug use is also effective in reducing the incidence of violence and delinquency in schools<sup>1</sup>

# **DBT FOR PREVENTION**

In addition to the reduction of tobacco use. alcohol use, illicit drug use, violence, and school delinquency that result from maladaptive strategies that result from past traumatic events, DBT skills can also improve resiliency to future adverse life events and improve the quality of life after those life events. In 2014 Jenaabadi, et al., studied the effect of DBT based skills training on the resilience of teachers of normal students and teachers of exceptional students. The study defines resilience as, "A process, ability, or the outcome of successful adaptation to threatening conditions." The study continues to say that resilience is not only the resistance against trauma, a threatening state, or a passive state against dangerous conditions, but includes active and constructive engagement with the environment. It is the individuals ability to reestablish a biological and emotional homeostasis with emotional, affective, and cognitive consequences.

The results of the study indicated that the mental health of both groups of teachers were significantly and positively impacted. In addition, the results indicated that the resiliency of both groups of teachers were also significantly and positively impacted. In the mental health scores, the lower the number the better subject's mental health. The groups that received DBT based skills training demonstrated a drop in their mental health scores (22.6 to 16.73 and 25.12 to 18.2) as compared to the control groups (19.53 to 24.4 and 22.12 to 23.45). On the Fribourg Resilience Scale the higher the number, the better the subject's resilience. The groups that received DBT based skills training demonstrated an

<sup>\*</sup> Preventative effects on the top quartiles of the outcome variables.

increase in their resilience scores (160.12 to 173.17 and 152.08 to 169.19) as compared to the control groups (164.73 to 162.02 and 153.73 to 154.41)<sup>10</sup>.

#### CONCLUSION

The evidence overwhelmingly supports the teaching of DBT based skills as a normal addition to the K-12 curriculum. Based on the evidence currently available, teaching these skills, adapted for age, will lower the incidence of suicide, suicidal ideation and self harm in the 10 to 24 year old age group. In addition, this comprehensive approach will have collateral benefits that will decrease impediments to learning, and serve as a valuable adjunct to any pharmacologic intervention that may or may not be in place for children, adolescents, and young adults, while increasing educators' control of and ability to teach in the classroom.

LifeBST is being created for this specific purpose. LifeBST is an age appropriate curriculum based on DBT skills. While there is necessary educator and administrator training, LifeBST is created to be implemented by school systems without the need for the direct involvement of mental health professionals. Families Renewed, Inc., intends to provide online training and support to educators, administrators, and parents as well as onsite training and support when needed at no cost to the school system. This removes nearly all financial and professional barriers to implementation. And while not initially a primary goal, it is likely that LifeBST will have a positive impact on the mental health and resiliency of educators and administrators as well<sup>10</sup>.

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