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# Group Equine Assisted Therapy: a Novel Approach for Treating Adolescents Diagnosed with Oppositional Defiant Disorder

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# Group Equine Assisted Therapy: A Novel Approach for Treating Adolescents Diagnosed with Oppositional Defiant Disorder

by

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## Abstract

Oppositional Defiant Disorder (ODD) is a pervasive form of mental illness which affects millions of youth ages 12-18. It is characterized by a frequent and persistent pattern of angry mood, defiant behavior, and/or vindictiveness. Teenagers afflicted with ODD are often unwilling to participate in treatment and have difficulty responding to traditional therapy models. The current "Best Practices" model for treating ODD is extensive family therapy. As of today, there is no Best Practice method for providing direct treatment to the young people themselves. Equine Assisted Therapy (EAT) has been found to be qualitatively effective in reducing ODD symptoms in the at-risk youth population, as well as other potential comorbid conditions (sexual trauma, eating disorders, and aggressive behavior). The present program development model includes combined weekly traditional group therapy and weekly group equine assisted therapy to produce an effective, novel therapy approach to treating adolescents with ODD.

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## Introduction

Adolescence is often considered the most important phase for the development of self-identity, a time that is riddled with dramatic emotional and physical changes. Not only are adolescents' bodies changing dramatically, but they are also expected to make competent decisions that will impact the rest of their lives. Unfortunately for many, this intense pressure to be successful, coupled with significant physiological changes, can bring about a period of conflict and impulsive behavior. Youth can be often exposed to numerous behavioral, educational, familial and societal hardships that lead them to become classified as "at-risk." The term at-risk implies the youth are headed down a path of self-destruction that will inevitably lead to educational failure, or problems with the legal system. Identifying which youth are considered "at-risk" becomes a challenge in that there are numerous definitions in the literature, posing the challenge as to which youth are at more risk than others. Schwartz and Thompkins (2009) define at-risk youth as "juveniles who have recently been exposed to adverse psychosocial life events which, based on prior psychotherapeutic theory or research, lead to a significant future risk of negative mental health consequences." For the purposes of this paper, I will be using this definition when referring to the term "at-risk."

Oppositional Defiant Disorder (ODD) is mental health condition characterized by a persistent pattern of angry, irritable mood, defiant or disruptive behavior, and/or vindictiveness (American Psychiatric Association, 2013). It is one of a number of disruptive disorders classified by the Diagnostic and Statistical Manual of Mental Disorders-5$^{th}$ Edition (DSM-5) which are seen more frequently in at-risk youth. Due to the challenging nature of these disorders, it can be exceedingly difficult for mental health professionals to establish rapport with adolescents struggling with ODD. These individuals tend to present as hostile and indifferent in

therapy, often due to histories of trauma, maladaptive coping skills and poor resilience (Curtis et al., 2015; Lavigne, Gouze, Hopkins, & Bryant, 2016). Consequently, therapeutic interventions for disruptive disorders are often met with significant resistance, making it difficult to achieve positive therapeutic outcomes. There are several hypotheses as to why treatment providers have had such a problem finding an effective method for treating ODD. These include adolescents having difficulty utilizing abstract thinking to benefit from traditional therapy methods to this population's difficulty forming positively attached relationships with people of authority (Wilkie, Germain, & Theule, 2016). Moreover, adolescents who are involved in psychotherapy are often receiving treatment because a parent, court worker, or other authority figure has required it (Wilkie et al., 2016). Despite extensive treatment research on behavioral difficulties in at-risk youth, there is no intervention that has emerged as a best practice for this particular disorder (Eyberg, Nelson, & Boggs, 2008; Nelson-Gray, Keane, Hurst, Mitchell, Warburton, Chok, & Cobb, 2006). Fortunately, there have been a number of more traditional approaches that have been found to have positive effects on defiant behavior, such as Dialectical Behavior Therapy (DBT; Nelson-Gray et. al, 2006); however, there is not one, single "best" practice. Even more importantly, adolescents have been found to respond well to alternative therapy methods and methods that are experiential in nature, such as Animal Assisted Therapy (AAT) and social skills training involving role play (Bachi, Terkel, & Teichman, 2012; Eyberg et al., 2008; Fine, 2010; Wilkie et al., 2016).

Equine Assisted Therapy (EAT) has been found to have a positive effect among at-risk youth, as well as among youth with a variety of comorbid disorders, including eating disorders, anger, trauma, and depression (Earles, Vernon, & Yetz, 2015; Jang, Jihye, Jiwon, Kim, Jiyoung, Shin, Kwon, Kim, & Joung, 2015; Kemp, Signal, Botros, Taylor, & Prentice, 2014; Lac, Marble,

& Boie, 2013). From the first day of treatment, the horse becomes a "co-therapist," and the therapeutic relationship shifts from a dyad to a triad (Bachi et al., 2012 ). This method has been deemed useful for establishing rapport, reducing externalizing behaviors, stress reduction, and improving life satisfaction among other concerns (Bachi, 2012; Eyberg et al., 2008; Yorke, Nugent, Strand, Bolen, New, & Davis, 2013). Thus far, there has been no treatment method proposed for the treatment of ODD that combines the alternative therapy of EAT and traditional treatment methods. Research shows that these methods have positive effects when utilized alone, therefore it is likely that combining these methods will provide greater therapeutic outcome in adolescents with ODD.

## Purpose

The objective of this doctoral project is to design a treatment program for adolescents with ODD, combining weekly traditional group therapy with an emphasis on DBT skills and weekly group EAT. Once created, this program can be widely studied to determine therapeutic effects. There have been a number of significant challenges to researching the benefits of EAT. This project will propose ways to manage these challenges in hopes to allow this program to emerge as a Best Practice model for the treatment of adolescents with ODD.

## Statement of Significance

Adolescents who struggle to overcome behavioral difficulties, particularly those who meet criteria for a DSM-5 diagnosis, are at-risk of carrying on the negative effects of their behavior to adulthood. This can lead to instability in adulthood which can cause a myriad of adverse life effects, limited occupational success, affective disorders, maladaptive relationships, poor communication skills, and risk for drug and alcohol abuse (Burke, 2012; Burke, Rowe, &

Boylan, 2014; Eyberg, 2008; Leadbeater & Homel, 2015). As such, it is imperative that youth with ODD receive successful, early intervention and treatment for this disorder. Research on the treatment of ODD up to this point has primarily focused on treatment of the family system as a whole. The most widely utilized approaches currently include Multisystemic Therapy (MST) which treats the family system and parent training programs (Eyberg, 2008). There are virtually no treatments which address the adolescents directly as the primary form of intervention. Moreover, individual therapy has been found to be difficult with these particular clients due to the often treatment refractory nature of these cases (Masi, et al., 2011). Early intervention of ODD is minimally effective at best, and positive therapeutic outcome must be increased in order to address the problem as a whole.

The treatment model presented in this manuscript provides a variety of different aspects of intervention that have not been previously combined. The assumption is that combining two models with moderate effect sizes will produce greater treatment outcomes, as has been seen in some instances of treating adolescents with ADHD (Evans, Langberg, Egan, & Molitor, 2014). EAT has been used to promote prosocial behavior in at-risk youth all across the United States (Wilkie et al., 2016). It has been found to be useful for building social skills such as, communication, trust, anger management, emotion identification, and many others (Chandler, 2015; Fine, 2010). Chandler, in her book titled *Animal Assisted Therapy in Counseling* (2005), suggests that troubled juveniles have difficulty building positive relationships with people of authority, or people deemed more powerful than the adolescent (p. 120). Attempting this relationship with a powerful *animal*, particularly the horse (useful because of its intimidating size and stature) encourages participation and motivation to succeed. Once this relationship with the animal is established, it allows the adolescent to emulate this positive attachment with the

therapist. Lastly, this model could be a potential avenue for multiple different adolescent treatment needs, such as juvenile justice reform programs targeted at ameliorating the types of behaviors often associated with ODD.

## Section II: Literature Review

### Methods for Literature Review Search

The literature review search was conducted primarily through the Eastern Kentucky University library website "EKU Libraries" in order to understand the previous research that has been conducted on Equine Assisted Therapy, as well as ODD. The search was initially broadened to include all disorders that have been researched in conjunction with EAT, including eating disorders, mood disorders, anger problems, Attention-Deficit Hyperactivity Disorder, and Posttraumatic Stress Disorder. The search was then narrowed to include instances of EAT being utilized to treat disruptive disorders, such as ODD, or those considered to be "at-risk." There were several specific databases found useful in locating journals and articles related to this topic. PsychINFO, JSTOR, and OT Search were the primary databases used to search for journals and articles. Key words that were explored included Equine Assisted Therapy, Equine Assisted Learning, therapeutic horsemanship, Oppositional Defiant Disorder, Oppositional Defiant Disorder and group therapy, Oppositional Defiant Disorder best practices, treatment of Oppositional Defiant Disorder, comorbid diagnoses and Oppositional Defiant Disorder, Equine Assisted Therapy and adolescence, and Equine Assisted Therapy and at-risk youth. Some of the journals that were utilized include *Clinical Child Psychology and Psychiatry, The Journal of Alternative and Complementary Medicine, Journal of Clinical Child & Adolescent Psychology, Journal of Child and Adolescent Group Therapy, Journal of Child and Family Studies, Society and Animals, Anthrozoos,* and *Journal of Child and Adolescent Psychopharmacology.*

Consultation with colleagues and department heads in the EKU Department of Psychology was useful for finding books related to Animal Assisted Therapy (AAT). Specifically, the *Handbook on Animal Assisted Therapy: Theoretical Foundations and Guidelines for Practice* (2010) by Aubrey H. Fine and *Animal Assisted Therapy in Counseling* (2005) by Cynthia K. Chandler were utilized for background information on already established EAT programs, as well as to gain a better understanding of startup procedures and administrative guidelines for starting an EAT program.

Research discussing the utility of EAT for pre-adolescent children was not included in the literature review. There are several reasons for limiting the age range included in this program. First, there is an inherently greater risk in smaller children working with horses, particularly defiant children. Their slighter size and limited strength make it more likely for them to sustain injury if directions are not followed implicitly. Secondly, being that this is a group therapy approach, it was determined that it would be inappropriate to place children under the age of twelve in a group therapy setting with older adolescents. For these reasons, this specific program development focuses on children and adolescents from 12-18-years-old.

**Treatment of Oppositional Defiant Disorder (ODD)**

Behavioral disorders in children and adolescents have long been regarded as some of the most difficult mental health problems to treat, largely because they tend to be treatment refractory (Masi et al., 2011). Children afflicted with ODD are often seen as angry and hostile in therapeutic environments (Thompkins & Schwartz, 2009). One reason for this negative attitude about psychotherapy is that disruptive children are often required by an authority figure, such as a parent or court designated worker, to attend therapy because of their disruptive behavior (Wilkie et al., 2016). This sets the stage for the adolescent viewing psychotherapy as a

punishment, rather than a helpful intervention. Furthermore, children and adolescents are unable to view therapy in the same way as adults simply because of their developmentally stage. Adolescents have difficulty processing abstract themes and concepts the same way as adults (Arnett, 2014). The clinical utility of traditional treatment paradigms, such as Cognitive Behavioral Therapy, are often lost on youth due to the abstract nature of the treatment (Wilkie et al., 2016). It appears that at-risk youth respond best to hands-on approaches and multisystemic methods (Eyberg, Nelson, & Boggs, 2008). It is important to note that most adolescents appear able to grasp the concept of metaphors within the context of psychotherapy (Arnett, 2014; Wilkie et al., 2016). Use of the metaphor is highly effective in activity-based psychotherapy, such as Equine Assisted Therapy (Wilkie et al., 2016). However, the problem still remains that the high risk vulnerability of these youth to develop exacerbated psychopathology as adults, coupled with the treatment refractory nature of disruptive disorders, creates an increased need for effective treatment and early intervention of youth with disruptive disorders.

**Current interventions for ODD.** Eyberg et al., 2008 conducted a review of several commonly used treatment methods for adolescents classified as "probably efficacious" or "possibly efficacious" based on the level of outcome. The authors included well-conducted research studies (random assignment of participants, use of reliable measures, clear inclusion and exclusion criteria, etc.) to determine the outcome effects. Treatment methods deemed probably efficacious have a higher level of supportive evidence than possibly efficacious treatments. They are considered "well-established" interventions within the scientific community. Possibly efficacious treatments require more research to determine therapeutic value (Eyberg et al., 2008). As the purpose of this review is to review the most effective methods for treatment of ODD, treatments labeled possibly efficacious are not included.

Multisystemic Therapy (MST) is a treatment paradigm designed to treat adolescents with severe antisocial characteristics and delinquent behavior. There is a wealth of literature surrounding MST and its effectiveness for treating delinquent youth (Borduin, Mann, Cone, Henggeler, Fucci, Blaske, et al., 1995; Henggeler, Melton, Brondino, Scherer, & Hanley, 1997; Tighe, Pistrang, Casdagli, Baruch, & Butler, 2012). There are two main goals for treatment with MST: to promote responsible behaviors and to prevent the need for placement of the juvenile outside the home (Eyberg et al., 2008). The treatment provider works within the home for approximately three to five months several days a week to provide intensive family and community-based intervention though a combination of a variety of different psychotherapy methods (i.e. cognitive behavioral, behavior therapies, parent training, etc.) (Eyberg et al., 2008, Henggeler et al., 1997). This method has been found to be effective in even the most violent juvenile offenders for several reasons. First, it is a comprehensive method individually tailored to each client in a way that is designed to target all the aspects of antisocial behavior, i.e. family, school, community, etc. Second, the treatment is performed in the child's "natural" environment by being conducted within the home. Lastly, this method is extremely intensive and provides an unprecedented amount of therapeutic support throughout the course of treatment (Henggeler et al., 1997).

The next probably efficacious treatment discussed by Eyberg et al. (2008) is Problem Solving Skills Training (PSST). PSST uses a combination of role playing, corrective feedback, and problem solving skills to teach children how to apply practice scenarios to real-life problem situations. The method moves from simple exercises to more complicated over a gradual period of time to ensure an overall degree of understanding from each youth before moving to more complicated topics (Eyberg et al., 2008). Although this program was designed for a younger age

range, 7-13-years old, the concepts utilized in this program may be readily modified for work with older adolescents. PSST was found to be more effective in comparison to relationship therapies and control groups. In addition, there is an opportunity to combine a practice component with PSST that allows individuals to practice the skills they learned in session in a structured learning environment with a parent or teacher (Eyberg et al., 2008). As home and school environments can often be the most stressful areas of life for an at-risk youth, this at-home practice component could be essential for creating longer lasting positive outcomes.

Multidimensional Treatment Foster Care (MTFC) is a community based intervention program in which youth are assigned to a foster home with a specially trained foster parent. The program is designed to keep youth out of jail and residential treatment facilities. Each foster parent is given extensive training on how to provide an appropriate behavioral management plan for each youth. The youth receives weekly individual therapy with a licensed psychotherapist, as well as weekly meetings with an Applied Behavioral Analyst. Finally, the adolescent's biological parent(s) receive parent management training while the adolescent is in the foster home. Parent management training is currently an evidence based practice for treatment of youth with disruptive behavior that has been found to be quite effective (Eyberg et al., 2008). Although this treatment has been found effective, there is an element of concern surrounding pulling the adolescent from their natural home environment.

Other probably efficacious treatments for disruptive behavior in adolescents include Anger Group Assertiveness Training (GAT) (Huey & Rank, 1984), and Rational Emotive Mental Health (REMH) (Block, 1978). GAT involves eight hours of group assertiveness training, with treatment groups of six adolescents meeting twice a week for four weeks during the school day. This treatment was found to effectively decrease aggressive adolescent behavior in the classroom

(Eyberg et al., 2008). REMH, while also found effective in decreasing disruptive classroom behavior, is a more cognitively based treatment program designed to teach disorderly students how to restructure maladaptive thoughts in a group setting. Instead of solely focusing on talk therapy, however, REMH also combines role-playing and experiential activities to help students gain a more concrete understanding of group topics (Eyberg et al., 2008).

Despite the potential clinical utility of each of the above mentioned treatment programs for serious delinquent behavior in older children, there is still no single treatment which emerges as a "best practice." Eyberg et al. (2008) postulates that MST and MTFC are *most* effective for treatment of disruptive disorders as they include both parent and adolescent training components. However, even these "best" treatments see a loss in effectiveness as age increases (Barkley, Edwards, Laneri, Fletcher, & Metevia, 2001). The authors emphasize that each treatment must be conducted with the utmost integrity by following treatment manual guidelines in order to ensure the possibility of the most successful outcome. Lastly, it is prudent to discuss the use of pharmacological treatment for disruptive or aggressive behavior. Medication studies typically target the symptom of aggression rather than other disruptive behaviors (Eyberg et al., 2008). Underlying or comorbid disorders that may be medication-responsive are important to address before considering using medication for the treatment of aggressive behaviors (Connor et al., 2006). There is typically an underlying cause of aggression in adolescents. Therefore, it is believed that aggression should be treat as adjunctive to other underlying conditions in the treatment of ODD and Conduct Disorder (CD). In fact, it is argued that individuals with these disruptive disorders should only be treated with medication if other psychosocial approaches have failed (Connor et al., 2006).

**DBT skills for treatment of ODD.** Dialectical Behavior Therapy (DBT) was originally designed by Marsha Linehan for the treatment of Borderline Personality Disorder (BPD) (Linehan, 2015; Nelson-Gray, Keane, Hurst, Mitchell, Warburton, Chok, & Cobb, 2006). Many of the difficulties associated with BPD are characteristics found in adolescents with ODD, such as emotional dysregulation, difficulties with interpersonal relationships, and poor response to stress. Additionally, as discussed above, many of the treatments for ODD in youth involve treating the family system as a whole, rather than directly intervening with the adolescent. While these treatments have been found to show good effects on behavior management, it is often difficult to involve the families of adolescents with ODD in treatment. This is due to a number of reasons, including limited availability, lack of stable parent figures, and poor psychological condition of the parents. The benefit of DBT programs is two-fold. They not only target skills specifically needed by adolescents with disruptive disorders, but the treatment is focused on the individuals themselves with opportunities for family involvement.

As mentioned above, adolescents with ODD or at-risk youth, often come from backgrounds that are less than ideal. They may experience rejection, poverty, be victims of abuse, and/or come from broken families, all of which are also common characteristics of individuals with BPD (Marco, Garcia-Palacios, & Botella, 2013; Thompkins and Schwartz, 2009). In response to these unfortunate life circumstances, individuals with ODD tend to develop maladaptive coping patterns, show difficulty dealing with emotional states, and have low tolerance to frustration, becoming irritable or hostile over seemingly insignificant issues (Marco et al., 2013, American Psychiatric Association, 2013). The core domains of DBT include interpersonal effectiveness, mindfulness, emotion regulation, and distress tolerance. Interpersonal effectiveness involves building stronger relationships through assertive

communication skills. Mindfulness is a concept that promotes awareness of emotions and a presence in the here and now. Emotion regulation and distress tolerance both involve building coping skills for enduring painful or uncomfortable experiences, such as stress, sadness, and emotional pain. Nelson-Gray et al. (2006) conducted a study of 32 adolescents diagnosed with ODD who participated in a 16-week therapy group designed to implement DBT skills. Youth who participated reported a significant reduction of internalizing symptoms on post treatment self-repot measures, such as the Child Depression Inventory and the Youth Self Report. Caregivers reported that participants showed less externalizing symptoms after completion of the 16 weeks of treatment as shown by lower scores on the externalizing scales of the Child Behavior Checklist and the Diagnostic Interview for Children-Parent edition. Despite the use of a control group comparison, there appears to be a logical link between the core domains of DBT and the type of behavior changes shown by the adolescent participants. For example, caregivers rated the participants as significantly higher on the *interpersonal strength* domain of the Behavioral and Emotional Rating Scale (BERS) post-treatment. The BERS is a measure of an adolescent's ability to control his or her emotions or reactions to social experiences. This increase in interpersonal strength could easily be attributed to skills obtained from the interpersonal effectiveness, emotion regulation, and distress tolerance domains of DBT. Moreover, qualitative date from this study showed that both caregivers and the adolescent participants verbally expressed satisfaction with the group experience, including:

‘‘My child now has a better state of mind. He has calmed down his attitude and has better use of manners’’ (p. 1817).

“Since I’ve been in the group I think more when I’m mad about how to act. Before, I would just act” (p. 1818).

Additionally, the authors found their treatment to be generalizable across settings, making group DBT an intervention that can be utilized in almost any treatment environment (i.e. schools, treatment centers, etc.)

Other researchers have examined specific case studies of individual adolescents with ODD and DBT treatment. Marco et al., (2013) published an article explaining their work with two adolescent females diagnosed with ODD who also displayed comorbid symptoms of parasuicidal behaviors and aggressiveness. These two participants were given the ideal DBT treatment as proposed by Linehan (1993) including DBT skills training, individual therapy sessions, phone consultation, and parent training. After six months of this treatment program, both individuals showed a decrease in impulsive behaviors, parasuicidal behaviors, and aggressiveness. Furthermore, the participants also discontinued use of maladaptive coping strategies, such as alcohol use, isolation, and violence escalation. The authors suggest that their results, coupled with the results of previous research, including Nelson-Gray et al. (2006), indicate that DBT is a useful alternative for treatment of ODD, particularly when other treatments have been found ineffective.

Overall, there seems to be a clear link between DBT skills training and the reduction of ODD symptoms found in adolescents. Although this research is limited by a lack of randomized controlled trials and control group comparisons, DBT has long been considered an appropriate method for treating the symptoms of BPD. The similarities between DBT symptoms and ODD symptoms are too similar to not consider the potential of DBT as an evidence based treatment for ODD. For this reason, it is thought to be an effective method for treating disruptive disorders as well as BPD (Nelson-Gray et al., 2006).

**Group Therapy for ODD.** The concept of using group therapy to treat ODD has been controversial in nature, as it is believed by some that aggressive and disruptive adolescents will learn maladaptive behaviors from one another in a group setting. However, other research shows group therapy to be an effective mode of therapy for adolescents with ODD and other disruptive disorders. Kastner (1998) conducted two, 10 week, groups of weekly group therapy consisting of six aggressive adolescents. He provided a combination of structured activities and unstructured process therapy throughout the course of treatment. At the end of the ten weeks, all of the adolescents who participated improved on measures of aggression, attention, somatic complaints, anxiety and depression, and perceptions of intellectual and school achievement. Moreover, when therapy for disruptive behavior in the classroom is conducted in school settings, it is most often performed in groups, such as GAT and REMH (Eyberg et al., 2008). The group setting has not appeared to affect the effectiveness of these interventions, as they are deemed to be above moderately effective by researchers (Eyberg et al., 2008).

Groups provide a dynamic for adolescents that is unavailable in an individual setting. Adolescents are often searching for cohesion and inclusion within a group (Kastner, 1998). They seek belonging, attention, and validation of their experiences (Thompkins & Schwartz, 2009). The group therapy setting allows for adolescents to feel a sense of comradery with others, allowing them the potential to be more open in psychotherapy sessions. As mentioned above, it is often difficult for adult therapy providers to build rapport with at-risk youth due to the therapist's status as an "authority figure" (Wilkie et al., 2016). The group setting tends to break down this barrier as the youth watch how others benefit and learn from the therapy experience. Lastly, there are greater opportunities for role-playing scenarios, team building activities, and other experiential techniques in group settings than are available in individual therapy.

## Equine Assisted Therapy

According to the *Handbook on Animal Assisted Therapy*, using animals to promote healthy living provides a number of positive benefits to individuals from a variety of populations. Animals have been shown to reduce stress among hospitalized patients (p. 87), decrease loneliness among populations with limited social support (p. 86), and provide motivation for individuals with depression or behavioral concerns (p. 70). Currently, dogs are the most widely known therapy animal; however, there is a growing trend toward using many other kinds of animals, such as horses, cats, rabbits, and birds, for therapeutic benefit. Some of the most notable benefits of Animal Assisted Therapy (AAT), include motivating the client to attend sessions, facilitating client rapport and trust, increasing client focus during sessions, and providing client nurturing through animal interaction (Fine, 2010).

Equine Assisted Therapy (EAT) is an alternative therapy method (ATM) that utilizes the horse to promote positive change and prosocial behaviors in individuals struggling to overcome various mental health issues. The Professional Association of Therapeutic Horsemanship International (PATH) defines equine therapy as the utilization of a horse by a certified professional to reach a therapeutic goal as defined by the needs of the client (Professional Association of Therapeutic Horsemanship International, 2014; Wilkie et al., 2016). There are several different types of equine therapy that are designed for various different client problems, including EAT, Equine Assisted Activities (EAA), Equine Facilitated Psychotherapy (EAP), Equine Facilitated Learning (EFL), and Hippotherapy (Wilkie et al., 2016). The differences between these various methods of EAT are slight, but significant. EAA are any activities performed that involve the use of the horse. These activities can include riding, grooming, and participating in group EFL activities. A certified professional is not required to run EAA and the

activities may be structured or unstructured in nature. EFL are structured educational activities supervised by a credentialed professional which are utilized to promote personal growth in individuals (Wilkie et al., 2016). One example of an EFL is using horses for team building exercises. Individuals participate in the activity as a group, performing tasks such as moving the horse to a designated place without talking, saddling a horse with a blindfold on, etc. (Professional Association of Therapeutic Horsemanship International, 2014). EFL can be used for team building as mentioned above, as well as to build problem solving and social skills. EFP is different from EAT in that it specifically utilizes a mental health professional with the goal of making gains on mental health concerns by following a specific treatment plan. Hippotherapy utilizes the horse's movement and body structure to promote change in motor functioning, balance, and coordination in individuals with physical disabilities (Wilkie et al., 2016). For the purposes of this manuscript, EAT will be used to describe the equine therapy portion of the proposed activity, as the psychotherapy component will take place within an office setting and not the equine therapy setting.

Keren Bachi is a leading researcher in the field of EAT and her work can be used to illustrate the benefits of adding horses into large group programs. One of her studies in 2012 examined the use of horses to rehabilitate inmates in prison program with the Thoroughbred Retirement Foundation and the Wild Horse Inmate Program. In the Thoroughbred Retirement Foundation program, inmates do non-mounted training with ex-racehorses to help the horses transition into a second career. The Wild Horse Inmate Program involves working with wild mustangs and burros in mounted and non-mounted exercises. The benefits of these programs include giving inmates an opportunity to learn career skills for life outside of prison. They will be qualified to work as grooms on horse farms, veterinary technicians, and exercise riders (if

involved in a mounted program). Moreover, the inmates gain invaluable experience learning how to care for another living being through effective communication skills, empathy building, and responsibility. For example, working with horses requires effective communication. Individuals who have relied on power and control to make gains in their life outside of prison are forced to leave those mechanisms behind in order to provide the horse with a safe, comfortable environment. There is a greater understanding of how one's actions affect others through interactions with the horse (Bachi, 2013). One criticism of these programs currently is that there is no certification provider for the prisoners upon completion of the programs. In some cases, the inmates provide up to 200 hours of training work with the animals in order to complete their rehabilitation. It has been suggested that the inmates receive a certification recognizing their skillset that may be utilized on resumes and job searches post-release from prison (Bachi, 2013). Overall, this study of prison systems' inclusion of horses into their rehabilitation programming found a decrease of over twelve percent in the recidivism rates, as well as less disciplinary conduct while incarcerated. There is still a need to include control group comparisons with this population; however, the prison population can be considered a close comparison to the at-risk youth population. Prisoners often show similar characteristics to adolescents with ODD, such as ineffective communication skills, lack of empathy, and conduct problems. Moreover, they are likely to display these traits during childhood. Addressing the behavioral and emotional problems associated with ODD is potentially a cost-effective method for dealing with the problem of mass incarceration in society.

**Equine Assisted Therapy and At-Risk Youth.** As mentioned above, many of the positive effects of using horses in intervention appears to translate to at-risk youth. Several studies have

been conducted which specifically look at the effects of equine intervention on youth with behavioral disorders, or youth that are categorized as being at-risk.

Wilkie et al. (2016) conducted a meta-analysis to evaluate the efficacy of equine therapy in the treatment of various populations of youth who had risk-factors that characterized them as at-risk for experiencing negative outcomes. A total of three published and four unpublished studies met criteria for inclusion in the meta-analysis. The authors considered many risk factors, including a history of abuse/maltreatment, low socioeconomic status (SES), low socioemotional competence, delinquency, academic failure, parental stress, substance abuse, and family dysfunction. Programs ranged from 6-26 weeks, and all but one study utilized a group format. A total of seven effect sizes emerged from the data, indicating a medium effect size for equine therapy as a treatment for at-risk youth. The authors suggest that their results show an increase in overall level of functioning in at-risk youth who participated in EAT.

Other studies have examined the overall improvement in attitudes about life in adolescents after completing equine therapy programs. Levels of self-esteem and self-efficacy, two concepts which are often lacking in disengaged youth, were found to significantly increase in youth who became involved in equine activity programs. Moreover, research has shown a positive shift in the overall attitude toward life in young individuals with behavioral difficulties (Kendall & Maujean, 2015; Bachi, et al., 2012; Boshoff, Grobler, & Nienaber, 2015). Riding therapy specifically, that is activities conducted while mounted on horseback, was found to improve self-perception in youth who had previously been labeled as antisocial (Emory, 1992). Additionally, riding therapy has been shown to improve social acceptance, stability of close social relationships, and increase overall self-perception in girls reaching the age of puberty (Krawetz, 1993). Often times, at-risk youth resist therapy in traditional setting which leads them

to become disengaged in treatment. Providing equine therapy as an alternative method seems to improve the adolescent's attitude toward therapy, making it more likely for successful treatment outcomes (Eyberg et al., 2008; Kendal & Maujean, 2015; Wilkie et al., 2016).

Boys in a residential youth treatment facility improved their subjective well-being following the successful completion of an eight week equine therapy program (Boshoff et al., 2015). The authors of that study also assessed for improvement in maladaptive patterns of coping skills. While there was no change found in dysfunctional coping skills in this study, significant gains were made in the areas of problem focused coping and emotion focused coping, as well as the ability to use efficient planning. These findings indicate that the use of horses in residential facilities, often the site of the most disturbed youth, may provide an avenue for the building of healthy coping skills.

Resilience has been considered a major factor in the outcome of at-risk youth. Burgon (2011) created a program for at-risk youth in the foster care system which was then implemented to seven individuals over a two-year span. She found that the individuals in her program appeared to show an increase in protective factors that promote resilience. Participants both showed and self-reported higher levels of confidence and self-esteem after working with the horses, as they found they could gain a horse's trust through confident leadership. The individuals in this study described that their ability to show mastery of new skills promoted increased feelings of self-worth. Furthermore, the adolescents were introduced to new relationships and experiences that would have been otherwise impossible within the foster care system. Finally, several of the participants were able to articulate an empathetic response toward the horse, as well as peers, whereas empathy was previously not understood. For example, more

than a year after the conclusion of the program, the author received the following message from one of the participants:

"Hey [author], it's [Cinderella] here, the one who's favorite horse is [Louis]. How's he doing? Hope he's OK." (Burgon, 2011, p.175).

This quote demonstrates this individual's ability to consider another's feelings and well-being, as is required in any empathetic response. Furthermore, other fundamental aspects of adolescent life, such as trust, self-control, and self-image showed increases across year-long follow up studies (Bachi, et al., 2012). This suggests that equine therapy may provide the missing piece of the puzzle that prevents at-risk youth from maintaining gains achieved from therapeutic intervention.

**EAT and Aggression.** Aggression is considered to be one of the most problematic components of ODD, as it tends to complicate the presentation and treatment of afflicted individuals. There is a lack of efficacy among treatments which target both conduct and aggressive behaviors (Connor et al., 2006). Research on this topic among adolescent aggressive populations is lacking; however, there is evidence to suggest that EAT is beneficial to aggressive adult inpatient populations (Nurenberg et al., 2015). In a study conducted by Nurenberg et al. (2015) 90 adult psychiatric inpatients with recent violent or highly regressed behavior were randomly selected to participate in 10-weekly group therapy sessions of standardized EAP, canine-assisted psychotherapy (CAP), enhanced social skills psychotherapy, or regular hospital care. Primary diagnoses of the participants included Schizophrenia and Schizoaffective Disorders. Results showed that the need for direct one-to-one supervision was reduced in both the EAP and CAP groups. Hospital staff saw a reduction in violent behaviors in participants for up to 6-months post-treatment with EAP, but *not* with CAP, suggesting that EAP is a uniquely effective

intervention for violent inpatient participants. The authors suggest that the difference in groups is due to the apparent size difference between the animals. That is, horses seem as though they can be aggressive, but are not, as opposed to the smaller stature of dogs, promoting the concept of nonviolent behavioral strategies (Nurenberg et al., 2015). As mentioned previously, there needs to be significantly more research done in this area, as this appears to be the first controlled study with an aggressive inpatient population. However, this study provides initial support that these results could potentially be generalizable to inpatient adolescent populations, as well as aggressive adolescents in general.

**Equine Assisted Therapy and common comorbid disorders/conditions with ODD**

There are several conditions and/or disorders that are often found to be comorbid with ODD in adolescents. Dysfunctional mood, particularly depression and anxiety, aggressive behavior, a history of trauma, Attention-Deficit Hyperactivity Disorder (ADHD), and substance use disorders are some of the most common comorbid conditions (American Psychiatric Association, 2013). As is expected, the conflicting nature of these problems, coupled with the behavioral dysfunction from ODD, can lead individuals to suffer a loss in their quality of life. EAT has shown to be effective in decreasing overall psychological distress, and decrease the severity and amount of psychological symptoms (Klontz, Bivens, Leinhart, & Klontz, 2007). Moreover, EAT helps individuals become more oriented in the present and feel less burdened by resentments. Gains are made in independence, as well as the overall quality of life (Klontz et al., 2007). The following sections detail the contributions of EAT to the literature on treating various disorders found to be comorbid with ODD.

**EAT and Traumatic Experiences.** Trauma, particularly sexual and physical abuse, is often seen in children and adolescents diagnosed with ODD or defined as at-risk (Thompkins &

Schwartz, 2009). Traumatic experiences early in life can lead to a variety of behavioral problems as the child ages (American Psychiatric Association, 2013). EAT has been suggested as an alternative, or supplemental treatment of sexual trauma in both adolescents and adults, as EAT has been found to reduce cortisol levels produced by stress (Yorke et al., 2013). Posttraumatic Stress Disorder symptoms have been found to be alleviated significantly following horse-human interactions. Individuals who undergo these treatments report less generalized anxiety, less severe emotional reactions to triggers, and fewer symptoms of depression (Earles et al., 2013).

Yorke et al. (2013) examined child-horse pairs to determine the effects of an enriched environment, including building a connection with another being. The authors assert that individuals who experience sexual trauma see detrimental effects in their ability to form attachments to others, particularly those who experience childhood sexual trauma. They hypothesized that providing the child with an environment that would allow him or her to become attached to an animal would help the child form a bond to another living being. Cortisol levels were measured before interactions with the horses, during the interactions, and after to determine if the horses and children would develop similar levels of cortisol. Surprisingly, results showed that the child-horse pairs had correlating levels of cortisol after only six sessions, suggesting they formed a bond within this short period of time. In other words, after six sessions, the horse-child pairs had cortisol levels that were positively correlated. This provides support for the notion that horses can alleviate stress responses in children and adolescents (Yorke et al., 2013). More research is needed to determine the lasting effects of this response, as well as to determine how the length of time spent with the horse impacts the severity of PTSD symptoms.

Other research has been conducted to assess the impact of EAT on children and adolescents trauma symptoms. Kemp et al. (2014) assessed 15 adolescent females, and 15 children between eight and eleven years old, who had experienced sexual trauma. They assessed participants at three separate times, prior to intervention, prior to the addition of EAT after receiving in-clinic counseling, and following all intervention. Participants engaged in six weeks of in-clinic counseling followed by 9-10 weeks of EAT. While in EAT, individuals worked with the horses on the ground on a loose rope or at liberty, as well as participated in activities meant to provide metaphors between their work in the arena and everyday life. Results were similar across both groups of participants. At the end of the intervention, participants showed a reduction in depressive symptoms, a reduction in anxiety symptoms, and a reduction in trauma symptoms as indicated by self-report scores on various inventories. Moreover, while the child group only showed significant improvement after the addition of EAT, adolescents saw a significant increase in functioning from the initial assessment to the completion of in-clinic counseling only. Once EAT was added, the adolescents improved even further. The authors attribute this finding to the likelihood that adolescents can engage in traditional therapy more effectively than children. This study has important implications for the program being proposed in this manuscript, as it is the most similar treatment paradigm that has been located in the research thus far.

**EAT and other conditions comorbid with ODD.** Attention-Deficit Hyperactivity Disorder (ADHD) and substance use disorders are considered the most common comorbid conditions to ODD (American Psychiatric Association, 2013). ADHD is considered one of most prevalent neurodevelopmental disorders in school-aged children (Jang et al., 2015). It is characterized by impulsive behavior, hyperactivity, inattention, or a combination of those symptoms (American

Psychiatric Association, 2013). Substance use disorders involve a pattern of substance use that is causing detrimental effects to the individual's life and/or relationships (American Psychiatric Association, 2013). Teenagers with ODD often turn to substances to cope with their environmental stressors or past abuse (Cody, Holleran-Steiker, & Szymandera, 2011). EAT has shown positive effects on the core symptoms of ADHD, as well as emotional and behavioral symptoms (Jang et al., 2015). Specifically, EAT which involved mounted work with the horses increased attention and cognition, as well as improved cerebral function. Furthermore, mounted EAT improved social functioning in individuals, including less clinginess, increased coordination during play, and increased ability to get along with peers (Cuypers, Ridder, & Strandheim, 2011; Jang et al., 2015). Increases in motor coordination developed through EAT seem to bring about a sense of confidence and accomplishment in young people with ADHD (Cuypers, Ridder, & Strandheim, 2011).

There is little published literature on the use of EAT for treating substance abuse. However, there are several advantages mental health providers have reported when using horses in the treatment of addicted persons. First, as people struggling in the initial stages of addiction can be resistant to treatment, the horse adds a special dynamic to the therapeutic process in that individuals cannot verbally argue with the horse (Cody, Steiker, & Szymandera, 2011). Second, some individuals have found success in prevention of relapse by combining EAT with the 12-Steps of Alcoholics Anonymous. Lastly, those who utilize EAT for the treatment of addiction seem to feel that individuals have an easier time breaking down walls, or barriers, to treatment by interacting with the horse. The horse provides a comfort and bond to the individual that allows him or her to then feel comfortable with the mental health professional as well (Cody, Steiker, & Szymandera, 2011). There is an extensive gap in the literature on EAT involving its use in the

treatment of addictions. However, the clinical utility of EAT for various other disorders as shown by the examples above requires that this gap be addressed in the future. There are many individuals who have difficulty preventing relapse via traditional methods who might benefit from EAT if the area is further researched.

**Mechanism of Change**

A primary question regarding EAT is the mechanism of change that makes it effective in treating various populations. PATH attributes the effectiveness of the horse to the equine's ability to perceive and respond to experiences from only minimal sensory stimuli. The reason this piece of information is significant is because horses respond to even the minutest of reactions from humans, i.e. if there is a small reaction in the human's stress level, the horse will react to that stress in some manner. This allows for the horse to become part of a meaningful relationship with participants, as there is a reciprocal, give-and-take nature that is not always seen in other animals.

According to Fine (2010), the number one benefit of EAT is increasing rapport with clients. For example, a child client attempting to work through trauma may find it easier to discuss his or her experiences through use of the animal as a metaphor. Difficult conversations become easier to initiate, as the animal can be used for the basis of the discussion. An illustration of this would be explaining to a child that horses are very sensitive and do not like to be touched in certain ways. You must ask the horse's permission to be touched and wait for a response that signals his consent. This type of metaphor can be translated to a discussion of sexual trauma that may be easier for the youth to tolerate (Fine, 2010).

Bachi et al. (2012) established several useful equine activities that promote change in adolescence which are also noted in *The Handbook on Animal-Assisted Therapy,* as well as Chandler's *Animal Assisted Therapy in Counseling* (2005). They are as follows: 1. The equine-client relationship offers an enhancement of traditional client-therapist relationships. Horses are herd animals. In order for the horse to bond with the human, the human must show the horse that he is the leader. He must do this with gentle confidence so as not to overexcite the horse, but also with assertiveness so that the horse may feel safe with him (Bachi et al., 2012). 2. The herd dynamic of horses follows the life-cycle process of humans very closely. Horses go through birth, development, injury, courtship, rejection, etc. just as humans do. Directly witnessing and observing these herd dynamics allows for gentle transition into these topics with adolescents (Bachi et al., 2012). 3. Horses are extremely sensitive beings. They often can sense even the smallest changes in their environment, as well as in others *within* their environment. This includes the adolescent. In time, the adolescent will come to realize that he must control his emotions and his actions to keep the horse's trust and increase the horse's feelings of safety. The adolescent will become aware of how their interactions affect the horse, and consequently other individuals in the adolescent's life (Bachi et al., 2012; Fine, 2010; Chandler, 2005; Wilkie et al., 2016). 4. Horses are powerful animals. The ability to control a horse effectively requires self-confidence and assertiveness. It requires the adolescent to seek help when needed, as well as problem solve challenges (Chandler, 2005). Moreover, though they are large, they have a gentleness about their way of being that provides serenity to the therapeutic environment. This is particularly useful when individuals are concerned about receiving negative judgment for attending psychotherapy, or are resistant to attending treatment (Bachi et al., 2012). 5. Grooming and caring for the horse allows the adolescent to feel as though he is responsible for

something. Adolescents with disruptive disorders often have a lack of parental role models. Through daily care responsibilities, the adolescent may find it easier to articulate their own needs, many of which have likely been neglected. The adolescent stands close to eye-level with most horses, depending on the size of the equine. This eye-to-eye communication promotes openness and simulates the experience of holding eye-contact with other humans (Bachi et al., 2012). 6. When mounted, the adolescent has the opportunity to view the world with his feet off the ground. This is an incredibly powerful feeling which can mirror the effects felt from a drug- or risky behavior high. Moreover, when the therapist is also riding, she is at eye-level with the client. This type of "therapeutic mobile setting" promotes a sense of intimacy in the therapeutic process. Possibly even more importantly, riding the horse becomes a powerful behavioral motivator for the youth, allowing them to work for something in the collaborative therapy process (Bachi et al., 2012). 7. Finally, there is an overall maturation that takes place within the adolescent. They see growth and change in their physical, mental, and social perspectives. They begin to be able to accept touch through connection with the horse which begins to repair damage caused by a history of unhealthy, maladaptive relationships (Bachi et al., 2012).

The relationship between the youth and the equine, punctuated by a reciprocal exchange of interaction is the driving force behind therapeutic change in adolescents who participate in EAT (Wilkie et al., 2016). The adolescent becomes very aware of their effect on the horse, becoming increasingly sensitive to the horse's needs above their own. An adolescent who is often disruptive, who pushes others, fights, yells, or is behaviorally impulsive will begin to notice how their poor behavior effects their therapy partner (Fine, 2010). The adolescent is forced to step outside his egocentric self and begin to acknowledge the world as it moves around him.

**Limitations to Research on EAT**

Unfortunately, there are several significant limitations to the research presented above on EAT. Lack of randomized sampling and small sample sizes are an issue in all of the studies above, with the exception of Nurenberg et al. (2015), did not use randomized samples. Many of the studies utilized a quasi-experimental design due to the urgency of treatment required. Therefore, it is difficult to determine if EAT is the sole mechanism of significant differences in the current research, as the samples are not random (Bachi, 2012). Moreover, as seen in the meta-analysis performed by Wilkie et al. (2016), almost all EAT research is conducted with small groups of participants, typically less than ten at any given time. Research is difficult to generalize when small sample sizes are used, and the risk of error in the data is significantly higher with fewer participants. Another major issue with the research on EAT is the lack of control group comparisons (Bachi, 2012). Again, there is difficulty determining if EAT is the reason for positive change when a control group comparison is not utilized. For example, being that many of the participants are interacting with horses for the very first time, there is a risk that the gains seen by the adolescents are due to the novel concept of the treatment. That is, when the newness of the treatment wears off, it could become less effective (Wilkie et al., 2016). Another problem with the current EAT research is the short duration of evaluated interventions (Bachi, 2012). There is virtually no literature on EAT which utilizes longitudinal follow-up data to assess sustained remission of symptoms. Finally, there appears to be a large gap between recorded effect sizes and the amount of change reported by staff and participants (Bachi, 2012). In other words, the individuals directly participating in the EAT feel that they are benefitting at much greater levels than what the treatment research indicates. This implies that there is something about EAT which has yet to be studied, possibly accounting for the discrepancy

between self-report and measured data. This discrepancy is imperative to research on EAT, as bridging this gap could mean greater positive outcomes for participants.

## Section III: Original Contributions to Practice

### Program Overview

Current empirically supported treatments for Oppositional Defiant Disorder are seen as moderately effective at best (Eyberg et al., 2008). Interventions such as MST, MTFC, and other parent-training programs involve a combination of adolescent behavioral training and parent training to extinguish disruptive behaviors (Eyberg et al. 2008). An issue that is likely to impact the effectiveness of the above mentioned interventions is the often problematic relationship between a disruptive adolescent and his caregivers (Nelson-Gray et al., 2006). Parents of at-risk children can be difficult to engage in treatment because there is a tendency to be uninvolved with the child for a variety of reasons. Low SES may require a parent or caregiver to work long hours, leaving little room for involvement in the child's life. Parents may have their own psychological stressors or disorders which require treatment and make it difficult to engage in their child's treatment (Nelson-Gray, 2006; Thompkins & Schwartz, 2009). Moreover, at-risk youth have a higher likelihood of having poor resilience to psychosocial stressors as a result of their home environment (Thompkins & Schwartz, 2009). Even more concerning, youth who show a greater severity of aggressive behaviors, particularly predatory behaviors, have been found to be more treatment refractory to common interventions than other at-risk youth (Masi et al., 2011). By focusing more on the family than the adolescents themselves, treatment providers lose the chance to provide at-risk youth the opportunity to build the skills necessary for sustaining resilience that they would traditionally learn from healthy caregivers. Parent training is certainly an important component of treating ODD; however, it must not be the only

component, or even the most heavily emphasized component. The lack of parent compliance and the treatment refractory nature of ODD suggest that future interventions must provide alternative methods that can address these concerns in the research surrounding current treatments for ODD.

The method being proposed in this project involves integrating traditional methods of treatment for ODD, with EAT to produce a treatment paradigm that is effective in reducing disruptive behaviors in adolescents. This would be a 12-week treatment program with a maximum of eight individuals per group. Eight was chosen as the number of participants in order to account for likely attrition of several group members. An even number is ideal solely for the reason that there will be a number of activities which require partner or group work. However, if the number of the group decreases to an odd number due to attrition of group members, each activity can be modified to function effectively with any number of participants. The length of the program was chosen at 12 weeks, as this seemed to be an appropriate medium based on the length of treatment seen in other group therapy research (Eyberg et al., 2008; Kastner, 1998; Nelson-Gray, 2006; Wilkie et al., 2016). Additionally, this treatment paradigm will include four weeks of non-mounted equine activities, four weeks of partially mounted and non-mounted activities, and four weeks of mounted activities, making it necessary for the treatment to last twelve weeks. The idea behind the breakdown of the EAT activities stems from the idea that individuals are motivated by the opportunity to ride the horses, rather than just working with them on the ground (Bachi, 2013; Burgon, 2003; Burgon, 2011; Krawetz, 1993; Wilkie et al., 2016). An interview with Denise Spittler (personal communication, October 4, 2016), Program Director of Central Kentucky Riding for Hope (CKRH), a PATH, Intl premier accredited therapeutic riding facility, also confirmed that individuals with disruptive behavior

tend to view riding as a motivator for continuing in therapy. Spittler runs the programming at CKRH, including the collaboration of the facility with the STABLES program, an alternative school program for youth with behavioral difficulties in Fayette County, Kentucky. She suggests that riding the horse allows individuals to experience the world from a different view, something people find very powerful once experienced. As behavioral reinforcement is an important component to the treatment of ODD in adolescents, it is hypothesized that offering participants the opportunity to ride the horses in session will provide a strong motivator to enhance participation in sessions. The participants must be given ample opportunity to learn basic horse skills, as well as increase confidence, in order to safely and efficiently work up to mounted activities.

Another component to this program that is unique to other programming is the idea that this program will utilize traditional group therapy methods, alongside EAT, to treat individuals. The group structure would involve two hours of EAT and two hours of DBT skills training and process therapy on different days of the week. The treatment would have several sessions of group family therapy built in throughout the 12-week session. Designing the program in this manner allows participants to learn skills in a clinic setting which can then be practiced in an in-vivo experience during the EAT session. DBT skills have been shown to have profound positive effects on individuals with behavioral disorders (Heliodoro, 2013; Nelson-Gray, 2006). EAT, as shown throughout the literature review, has also been shown to have positive effects on disruptive behavior. Additionally, PSST would be utilized throughout the EAT sessions to promote frustration tolerance and resilience. PSST has been shown to be effective in increasing prosocial behaviors in adolescents (Eyberg et al., 2008). Combining the traditional therapies with the experiential nature of EAT is the basis for the design of this program, as research has

shown it to be effective across other settings. Nurenberg et al. (2015) found significant results combining clinic training with EAT for aggressive behavior in adults and Kemp et al. (2014) found significant results by combining EAT with in-clinic treatment of sexual abuse. However, no treatment thus far has combined DBT skills with EAT for adolescents with ODD. Moreover, a significant challenge for treating ODD in a clinic setting is the difficulty adolescents have translating skills learned in the clinic to real-life scenarios (Wilkie et al., 2016). The program proposed here allows individuals to learn DBT skills, and then directly apply those skills, through use of an experiential approach. Adolescents have been shown to incur greater treatment outcomes when allowed to escape the traditional therapy environment, as seen in treatments such as MST (Eyberg et al., 2008; Wilkie et al., 2016). For this reason, the group therapy piece of this program would be conducted in the same facility as the EAT. Not only does this allow the adolescent to move out of the traditional clinic setting, but it also allows for consistency throughout treatment. The goal is to produce an environment where the adolescent feels safe, comfortable, and is able to create positive associations between himself and the treatment facility. The driving force behind designing a program of this nature is the idea that research has already shown medium effect sizes for EAT in the treatment of at-risk youth, as well as for using DBT skills to treat behavioral disorders. Combining the two treatments may produce greater, longer lasting effects for the treatment of ODD by accounting for the gaps in treatment which are created by only using one method. Lastly, this program is designed to be a potential model for juvenile justice diversion programs. There is research that proposes the externalizing component of ODD in males masks underlying emotional dysfunction (Burke, 2012). Utilizing this program as a diversion for youth who have been adjudicated in the juvenile justice system would help these individuals get the treatment they need to address both emotional

and externalizing behaviors; the idea is that if the emotional component is treated, then the risk of recidivism can be reduced.

## Proposed Treatment Model

In order to understand how the program will address the various components of ODD, a hypothetical, session-by-session example of the proposed treatment is provided Appendix C of this manuscript. However, for those who are not as familiar with mental health treatment, a detailed description of each session is described in this section.

**Session one.** In session one, the most important goals are to establish group rules and conduct introductions between the youth and their equine partners. During the initial group therapy session the youth will be allowed to brainstorm rules they feel are appropriate for the group room setting. These rules will be voted on and combined with already established rules for group conduct. By having say in the group rules, the youth are given the opportunity to feel as though they have control over their fate, even if only a minute amount. This method helps begin the rapport building process between youth and the clinician. The rules for the barn portion of the session will be far stricter with less room for input by the group members. After group rules have been established, youth will begin to learn the concept of the "wise mind."

According to Linehan (1993), the mind exists in three states, the emotion mind, the reasonable mind, and the wise mind. The emotion mind operates within intense, subjective states where it becomes difficult to think rationally or logically. The reasonable mind presents the opposite manner of thinking, which is by searching out observable facts and knowledge. The wise mind presents a bridge between the two minds, allowing an individual to utilize both facts

and emotion in their decision making. There are a number of activities that promote learning how to use a wise mind, including role play activities and worksheets.

The EAT activity associated with the initial therapy session is "Picking a Partner." Before beginning the activity, the youth will be expected to know and understand rules for appropriate behavior around the horses. It is imperative that the participants abide by these rules while in the barn, and it must be made clear that breaking the rules in the barn will not be tolerated. Enforcing the rules in this manner ensures the safety of both the adolescents and the horses. All PATH Premier Facilities will have a list of barn rules that can be utilized for this purpose; however, rules should be sure to include no running or horseplay near the horses, no aggressive behavior toward the animals, and no smoking anywhere on the premises. Restraining impulsive behavior, as well as following the rules, requires use of the wise mind while working with the horses. Next, the youth will learn how horses express emotions. The benefits of this activity are two-fold. First, it allows the adolescents to understand how to observe and understand their equine partners. This is an important first step to establishing a relationship between horse and participant. Secondly, learning how horses express emotion allows the horse to become a metaphor for real-life situations. The youth see how horses respond with different emotions as reactions to certain situations, and then extrapolate to their own lives. The final piece of the first week's EAT activity involves the youth entering an enclosed arena or field where the herd of horses are contained. The youth begin by observing herd behavior, before allowing themselves to move closer to the herd. The first horse to approach each youth has "picked" their partner and the bond begins.

**Session two.** The second psychotherapy session builds on the skills learned from session one involving the wise mind. In session two, the adolescents will begin learning the skill of

mindfulness for emotion regulation. Mindfulness is the first of the four skills sets utilized in DBT as proposed by Linehan (1993). The goal of mindfulness is to help an individual become more comfortable living in the here and now. It seeks to teach people how to direct their attention with a non-judgmental perspective, taking control of their minds before their minds take control of them. Mindfulness utilizes a variety of activities to build this skill set, such as meditation, observation of inanimate objects, and breathing exercises. Research suggests that adolescents benefit greatly from utilizing a mindfulness based perspective. In fact, mindfulness can be seen as a protective individual difference characteristic in adolescence (Pepping, Duvenage, Cronin, & Lyons, 2016). This session of the program will focus on the use of mindfulness based activities to address emotion dysregulation.

The EAT session in week two will incorporate the concept of mindfulness through basic horsemanship skills. The adolescents will begin by learning how to understand the way that their body language affects the horse. For example, presenting the self as confident and calm while utilizing positive praise will build the horse's trust, while yelling, screaming, swearing, hitting, etc. will not be successful in building a relationship with the equine. Each adolescent will be responsible for catching their horse and leading it in from the field. Then, they will learn basic grooming skills (brushing the horse, picking rocks from its feet, etc.) from a mindful perspective. The youth will be instructed to examine and observe the horse's coat and hair as they mindfully breathe through each brush stroke. They will then be instructed to observe the effect that this way of being has on their horse. Does the horse seem relaxed or anxious? Is the horse standing quietly or shifting around in the grooming area? What are the horse's ears doing? By having the youth observe these characteristics, they are also building on the knowledge of horse behavior that was learned in week one, as well as beginning to see the effect their behavior has upon the

behavior of the horse. The next part of the session will focus on learning how to lead the horse through a simple obstacle course, i.e. weaving through cones, turning a circle, or other uncomplicated patterns. This piece of the EAT activity encourages the adolescents to utilize the quiet, mindful perspective from the grooming time. It will become quite apparent to the youth in a short amount of time that swearing at or pulling excessively is not going to move the horse's feet from point A to point B. If this occurs, the youth will be reminded gently to use calmer behavior, but will be allowed to problem solve their way through moving the horse.

**Week 3.** The goals of the week three therapy session are to practice mindfulness exercises and to introduce the concept of interpersonal effectiveness. Interpersonal effectiveness is another DBT skill, and it was designed to help individuals learn how express themselves effectively within relationships (Burke et al., 2014; Nelson-Gray et al., 2006). As mentioned in the review of the literature, adolescents with ODD often struggle to maintain positive, meaningful relationships as a result of their behavior (Curtis et al., 2015). The group therapy setting will allow for building conflict and working through resolution through designed role play activities. Adolescents will also learn how to communicate effectively with one another through partner and team exercises.

During the EAT session, the adolescents will be introduced to the concept of "joining up" with their horse. This concept was developed by Monty Roberts, a professional horseman well-known for his ability to build a trusting relationship with difficult horses. The skill involves the use of a round-pen, or a small, circular arena. The adolescent stands in the center of the pen and learns how to drive the horse around the pen using only his/her voice and body language. Then, the youth is instructed to watch carefully for signs of relaxation within the horse (i.e. licking and chewing, ears flicked to the inside of the pen, head lowering, etc.), once the signs are there, the

youth relaxes his/her body posture and allows the horse to approach the center of the pen. From here, the adolescent should be able to walk around the pen with the horse following at his/her shoulder without any hands on the horse. This is when the bond between human and horse has been fully cemented. This activity allows the adolescents to feel in control, as well as to understand what it means to have a trusting bond with another living creature. Moreover, they start to see how confident, assertive communication is most productive for achieving goals. Lastly, the youth must begin to problem solve the situation, in the event that the horse is initially non-cooperative. This activity is conducted one at a time with the other youth watching and under careful guidance of a trained professional.

**Week 4.** The week four therapy session will be the first opportunity for family to attend. The focus of the session will build on the interpersonal effectiveness skills learned from week three, particularly effective communication through use of DEARMAN. DEARMAN is a mnemonic developed to help individuals understand how to interact appropriately in relationships to accomplish what is needed (Linehan, 1993). Family and youth will begin by doing an activity that involves partnering up and communicating with the family member to accomplish a goal or task. The second hour of the session, family members and youth will engage in process therapy with the goal being that they utilize the communication styles they had just practiced.

The week four EAT session will not include family, as it is expected that the adolescents might still be slightly uncomfortable around their equine partners, and may not be ready to share what they have learned. The goal is to set the participants up for success. Instead, the youth will continue to utilize the concepts of teamwork and communication that were previously learned in the therapy sessions with their families. As always, the youth will begin by bringing in their equine partner and grooming. The activity utilized in this session is called “Horse Billiards.”

This is a well-known activity among the EAT therapy world, utilized by many programs for promoting teamwork and building leadership skills. Four horses at a time are turned out in an enclosed arena. The adolescents work in teams of four-six to move each equine to a "pocket," or corner, of the arena. The catch is that the youth are not allowed to use any verbal communication, except during designated time-out periods. They also are not allowed to touch the horses at any time. The goal of this activity is to get the adolescents to understand how to work together to accomplish a goal. They must also utilize effective communication skills during the short time-out periods when they are allowed to talk. A half an hour will be set aside at the end of the session to allow time to process what was learned in this activity. Additional details about this activity can be found in Appendix C.

**Week 5.** The week five therapy session will involve effective goal setting and overcoming barriers to achieving set goals. During the activity section of the group, the adolescents will create a list of five achievable goals for the immediate future. They will also establish a list of two goals for the future. The adolescents will then work together to brainstorm possible barriers to each other's goals and come up with creative solution to solving those barriers.

The EAT session is directly correlated with the therapy session. The adolescent participants will choose one of the goals they created in the therapy session. Then, they will build an obstacle course in the arena that represents real-life hurdles that may occur on the way to achieving a goal. For example, if completing high school is the participant's goal, they may place a sheet of paper at one end of the arena representing a high-school diploma. In the middle, they may place cones to weave around, poles to step over, or a bridge to cross, representing a poor home-life, learning problems, substance abuse issues, or other potential barriers to achieving the end-goal. Then, the youth will lead their horse through the obstacle course, until

they reach the end. The discussion of this activity includes talking about how it felt to have the equine partner along for the journey and what that could represent in the real-world. The final goal of this session is to have the adolescents begin learning how to bridle and saddle their horses, as the next session will begin mounted activity.

**Week 6.** Building on the goal-setting from week five, the adolescents will create a timeline of their life events in week six. They will place major life events onto a timeline that can be as decorated, or undecorated, as they choose. The purpose of this activity is to discuss barriers and obstacles that have been overcome throughout the course of the youths' lives. This activity may also help the adolescents recognize and understand how problematic behavior has led to their current situation.

The EAT session in week six will be the first mounted session. Of course, as mentioned in the above section, working up to riding the horses is a privilege that the youth must earn from good behavior throughout the program to that point. Youth who have not earned this privilege will be instructed to help the other students tack up (bridle and saddle the horse) in order to earn riding time for the following week. The goal of this session is for the youth to tack their horse, mount the horse successfully, and ride for 30 minutes to one hour. Being the first mounted session, it will take a bit longer for the adolescents to get to the point of riding, as they are still somewhat unfamiliar with the process of tacking and mounting a horse.

**Week 7.** In week seven, the participants will learn the DBT skill of distress tolerance. Distress tolerance is meant to teach an individual how to handle stressful situations without making them worse through an overly volatile reaction. The goals of this session will be to teach the concept of distress tolerance, and to introduce the idea of coping through distraction, acceptance, and use

of alternatives. The clinician will utilize role play and other experiential activities to help cement these concepts.

The week seven EAT session will focus on learning how to desensitize a horse to a "scary" object (for horses these might include a plastic bag, a tarp, a bag of pop cans, etc.). The youth will learn the proper skills to do the desensitization, and then they will work through it with their equine partner. The equine professional (or clinician if they are the same individual) will oversee this activity carefully to ensure the horses are not becoming more fearful of the object, or the human. The discussion from this session will stem around distress tolerance for the horses, building empathy for the horse's reaction, and understanding how to tolerate nuisances in life. The end of the session will include thirty minutes of mounted riding time.

**Week 8.** The second family session will be held in week eight. During this week, the goals will be to discuss the progress the adolescents are making (or not making) in the program, as well as to identify challenges and brainstorm how to overcome these challenges. If time permits, a second communication activity will be conducted.

Family will also be allowed to attend the EAT session in week eight. The youth will be instructed to pick a skill to demonstrate to their family and teach their family one thing about horses. They will also be allowed to demonstrate mounted riding skills. The adolescents will be allowed to choose any skill of their choosing in order to promote success. The goal of this week is to have the youth feel a sense of accomplishment about what they have learned throughout the program. This activity will give those adolescents who may have been struggling with the horse skills the opportunity to realize what they have actually learned.

**Week 9.** In week nine, the focus of the group will be on building trust. The adolescents will work together to generate a list of the advantages and disadvantages of trusting others, as well as

a list of qualities that could be found in a trustworthy individual. Adolescents with ODD may have a difficult time trusting others due to patterns of poor family relationships, trauma, and other life stressors (Burke et al., 2014; Curtis et al., 2015; Nelson-Gray, 2006). This session strives to teach adolescents the difference between over-trusting, and not trusting enough. They will work in small groups or partners to complete a trust activity. This activity usually involves building a "mine-field" in the therapy room of chairs, books, etc. and having one adolescent close his/her eyes, while another adolescent guides them through the maze of objects. The goal is to listen, communicate effectively, and trust each partner.

The EAT activity associated with week nine also works on building trust. As building a trusting bond with the equine partner has been the major focus of the program thus far, the EAT activity will utilize the horses, but continue to focus on trusting each other and working together. In order to tack their horses this week, the adolescents will work in pairs. One partner will be blindfolded and the other partner will give instructions. Then the partners will switch roles. It is imperative that the clinician or equine professional remain close throughout this activity to ensure that the energy level does not get so high as to upset the horses. Horses suitable for this type of program will be desensitized to such behavior; however, for safety reasons, quiet behavior must be emphasized. Once tacked, the participants will mount their horses and completed a mounted, pairs-riding activity. They will hold a piece of crepe paper between their hands will riding side-by-side as the instructor calls out different tasks to perform. The pair that lasts the longest, i.e. the pair that communicates the most effectively, will be the "winner."

**Week 10.** Decision making and problem solving will be the focus of week ten activities. Problem solving skills training is often cited as an effective method for the treatment of ODD, as it is widely known that adolescents struggle to problem solve (Eyberg et al., 2008). Often, they

resort to giving-up on tasks which do not seem to have an immediate solution. Moreover, adolescents are at time in their lives where they are expected to begin making adult decisions, such as who to date and where to go to college. In this session, after processing about difficult decision-making within their own lives, the participants will work in pairs or small groups to create a real-life scenario that involves decision making. Then, each group will respond to another group's scenario, working the decision making process.

In week ten of EAT, the youth will begin preparing for the horseshow that will take place during week eleven. To practice problem solving, following directions, and decision making both the mounted and non-mounted activities will involve patterns. In a horseshow, there is often a class called showmanship offered. Participants receive a pattern which they must learn and memorize before performing the pattern with the horse in-hand in front of a judge. The patterns might include walking between cones, trotting between cones, halting the horse, backing the horse several steps, and "squaring up" the horse's feet (moving the horse so that the front feet are side-by-side and the back feet are side-by-side). Performing a pattern of this nature involves following multi-step directions, as well as problem solving uncooperative behavior by the horse. During the mounted portion, the instructor stands in the middle and acts as a "judge," calling out different speeds and directions. The riders are judged on their position in the saddle, ability to promptly follow the instructions, and their partnership with their horse. The more advanced riders may also be asked to perform a mounted pattern.

**Week 11.** Week eleven will be the final family session. In order to promote positivity as the youth begins the transition out of the program, this family session will focus on the utilization of positive praise and self-affirmations. The objective of this week is to help the family understand how to work together as a team. Family members will generate positive praise and affirmation

lists to be read out loud to each other. The families will come to an agreement on what praise works best for their individual styles.

As mentioned above, the week eleven EAT activity will be participation in a horseshow activity. The participants families will be invited to watch, and the youth may choose to participate in non-mounted showmanship or mounted horsemanship. There will also be a "Positive Mock Elections" vote. The participants will vote for each other on a variety of positive categories, and everyone will receive an award.

**Week 12.** This is the final week of the program. The group therapy session will discuss an overview of what was learned. Each youth will identify one person in the room who has taught them something new. Then, the clinician will begin the discharge ceremony. Each individual will end up receiving a gold coin to take away as a memento. Before the coin is given to a member, the other group members take turns passing the coin around the circle and saying something positive about that individual's experience in the group.

The EAT session in week twelve will focus on saying good-bye to the equine partner. After twelve weeks of consistent work, the youth will likely have developed a strong bond with the horses, finding it difficult to say good-bye. To ease the transition, each individual will paint a picture or write a letter on their horse using washable paints. They will be allowed to choose an activity to spend one-on-one time together with their horse. This can be anything from taking one last ride, to sitting in the field while their horse grazes. The session will wrap-up with a discussion on how to say goodbye.

**Program Materials, Staffing, and Costs**

One of the major challenges associated with both providing and researching EAT is the cost associated with including multiple horses in the treatment. Horses are expensive animals by

nature. Costs associated with horses include the following: stabling costs, semi-monthly blacksmith bills, routine veterinary care, costly veterinary care in the event of an unexpected injury or illness, grain and hay costs, facility upkeep (shavings for stalls, pasture mowing, fence repairs, etc.), and the costs associated with maintaining staff to provide daily care for the animals. Please refer to Appendix D for a proposed budget for horse care costs associated with an EAT program. Additionally, in order to provide a treatment program that involves mounted activities, as well as non-mounted activities, the facility needs to provide a set of well-fitting tack (tack is the word used to describe the saddles, saddle pads, bridles, and leg protection worn by the horse while being ridden) for each mount. The facility must also provide a safe area to conduct mounted and non-mounted activities. Usually this is in the form of a dirt or grass arena with the most important feature being that the space is completely enclosed to ensure the safety of the animals if they were to unexpectedly part with their participants.

Staff interacting with the horses should be experienced in basic equine skills. Ideally, all staff interacting with the horses will be certified by PATH as either a Certified Instructor or an Equine Specialist. The cost to participate in the certification workshops range from $1000-3500 dollars depending on the specialty (Spittler, 2016). This ensures that both the horses and the participants will receive safe, reliable care while involved in treatment. The therapy provider may be this person if qualified, or she may utilize someone who is qualified to handle the horses while the therapy provider oversees the process without handling the horses directly. For consistency and integrity of the treatment, however, it is best if the therapy provider is also a certified equine professional.

In light of these seemingly momentous hurdles, there is an obvious solution to facilitate start-up of an EAT program. PATH makes two distinct designations in facilities that can become

accredited by the organization, a Member organization and a Premier organization. At the start of each year, PATH sets out a list of guidelines which are readily accessible to the public on their website, www.pathintl.org. The guidelines include everything from safety of the facility, to equine welfare, to standards for EFP, and so on. A center must re-apply for PATH accreditation every seven years to ensure standards are continuing to meet expectations (Spittler, 2016). A PATH Member organization must adhere to the guidelines designated as mandatory within the PATH manual. In contrast, a Premier organization must adhere to all standards as they apply to that particular facility (i.e. a facility that does not offer equine driving would not have to adhere to the equine driving standards), not just the ones marked as mandatory. For this reason, it is suggested here that partnering with a PATH Premier facility would be the most efficient method for starting a new therapy program that also utilizes EAT. This means that the Premier facility would be responsible for the welfare of the equines, as well as the costs associated with their upkeep.

Regarding cost, the therapy provider would reach an agreement with the facility about how much of the profits associated with the treatment would go to the facility. For example, if the therapy provider makes $100 for every client each week, the PATH facility may require 25% of that revenue to contribute to the extra budget the facility will need to run the therapy program. Most Premier facilities use a budgeting method that can provide the center's cost calculating data when requested, so that the therapy provider is aware of the costs involved. By collaborating with the PATH Premier center, the cost of the program becomes significantly reduced. Now, the therapy provider only has to account for a small percentage of the facility fees, rather than shoulder the weight of the entire cost. The budget proposed in Appendix D would be virtually eliminated through collaboration with a PATH Premier facility. In addition, PATH Premier

centers often have an individual on staff in charge of procuring funds through grants and donations. In my interview with Denise Spittler, she suggested that most facilities are willing to partner with organizations that offer new ways to reach youth in need. In fact, she explained that most centers will allow their grant writer to work with various organizations in order to help secure funds, as it is well known that most therapeutic riding centers cannot offer pay by insurance. She shared that CKRH in particular, enjoys partnering with other organizations, because both parties can benefit from one grant. Again, this alleviates some of the stress of the therapy provider having to secure startup costs, on top of other program development needs.

By partnering with an already existing PATH facility, the equines used in the program will have been carefully screened and selected for use based on an extensive evaluation. Moreover, the horses go through rigorous desensitization training in order to be sure they will not react negatively to unruly behaviors by children with disruptive behavior disorders (a sample equine training checklist is included in the Appendix B). The horses are also regularly checked for health and welfare as indicated by the PATH manual guidelines. As the horses are one of the most integral components of this combined treatment paradigm, it is incredibly important that the horses be well maintained and sustain positive attitudes, giving the participants ample opportunity to build lasting positive relationships with the animals.

Finally, collaboration with a Premier facility allows researchers to address the gaps in the research literature through use of larger sample sizes. A more comprehensive description of the advantages of pairing with a Premier facility on research is provided below in the Treatment Outcome and Evaluation section. A list of the PATH standards regarding EFP and equine welfare can be found in the Appendix A.

**Clinician and Participant Characteristics**

Due to the difficult nature of adolescents with ODD, therapy providers should be familiar and comfortable with child and adolescent therapy. They should be well trained in group therapy, DBT skills, and family intervention. If a therapist wants to provide this combined treatment and does not feel comfortable with one of the previously mentioned paradigms, she should seek additional training in that area through continuing education, consultation, and/or supervision. As mentioned above, having the therapy provider also be an equine professional would help keep consistency within the therapeutic setting. However, if she is not familiar with equines, she should make an effort to meet with the equine professional from the PATH facility to collaborate treatment on a weekly basis. At a minimum, she should attend the center's training for new volunteers in order to familiarize herself with the horses, staff, and facility.

Participants chosen to be members of this combined treatment should be screened carefully for several things. First, it is important that the individuals receiving therapy are not actively abusing substances, or that they are aware that coming to the EAT sessions intoxicated will lead to removal from the group. This is very important for the safety of the horses, as well as the other participants. Next, individuals who are excessively aggressive, or have a history of harming animals, may be inappropriate for this group. At no time is it acceptable for a participant to engage in abusive behavior toward the equine, regardless of an emotional, physical, or developmental disability. Finally, individuals who had previous diagnoses of ODD which has progressed to a diagnosis of Conduct Disorder should not be included in the treatment, as the purpose is to provide early intervention to avoid a future escalation of diagnosis. Participants should be between the ages of 12-17, as it is inappropriate to place young children in

a group with older adolescents; however, if the group maturity is at a younger level, younger participants may be considered for inclusion in the treatment.

**Treatment Outcome and Evaluation**

As with any new program, it is imperative that a comprehensive evaluation be conducted to determine the effectiveness of the proposed method. To measure treatment outcomes, a pre-post survey will be utilized that assesses the problematic behaviors this program is intending to target. Measures utilizing both internalizing and externalizing behavior scales would be ideal for addressing treatment outcome. Specifically, the Behavior Assessment Scale for Children, 3rd Edition (BASC-3) will be administered. This measure includes self-rating scales, as well as parent and teacher rating scales, keeping the assessment consistent across individuals. On the BASC-3, it would be expected that scores on the externalizing scales, such as Aggression, Conduct Problems, and Hyperactivity would decrease. Moreover, program stakeholders would hope to see an increase in prosocial skills, including Leadership and Social Skills. The BASC-3 would be completed by participants and their caregivers, prior to treatment, immediately following, and on three-month follow-up. Utilization of follow-up data allows researchers to determine whether symptom stability is maintained over time. If possible, it would be useful to collect teacher data as well, to see if results translate across settings; however, this may not be possible in treatments conducted during the summer months. Finally, this treatment could eventually be modified to include an equine certification for adolescents which could be used on resumes and college applications. If so, keeping track of the college/occupational choices of past participants would provide rich data for EAT literature.

As mentioned above in the Limitations to Research section, there are two significant issues with current research regarding EAT. These include small sample sizes and lack of

control group comparisons. One of the purposes of pairing this program with a Path Premier facility is the ability of the facility to handle a larger influx of participants than has previously been studied in EAT research. The Premier facilities tend to own upwards of 20-30 head of horses, allowing for larger sample sizes in research studies (Spittler, 2016). For example, a researcher could run four treatment groups weekly with six adolescents in each group. This would give a weekly total of 24 participants for the 12-week treatment. If the researcher ran three 12-week programs in a year, the total number of participants would equal 72, a much larger group than has ever been studied in EAT. A Premier facility is capable of sustaining that many participants because of the number of staff and horses that are already a part of the facility. Moreover, by requiring partnership with a PATH facility, the results of the research would become more generalizable due to the extensive guidelines being followed. That is, studies conducted at different facilities would know that the center has to meet certain criteria which could address potential confounds to the research. Regarding the issue of lack of control group comparisons, utilization of three separate groups to measure outcome would be most ideal for the evaluation of this particular treatment method. The groups would consist of a DBT-only group, an EAT only group, and the proposed treatment model of combined EAT and DBT. A research design of this nature ensures that no person in need of treatment is being excluded from receiving the treatment, while also allowing comparisons across the three treatment groups.

Lastly, it would be beneficial to include a pre-post survey to assess the participants' enjoyment of the program and their perceived benefits from involvement. Collecting this data would provide more information about whether at-risk youth find this program to be a positive, useful experience. As discussed earlier, at-risk youth struggle to engage in treatment because they do not typically choose to seek treatment themselves. Collecting data on how the

adolescents feel about the program would provide excellent information on how to improve, and market, this particular treatment method. A hypothetical survey of this nature is included in Appendix E.

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# Appendix A

PATH INTL. Premier Facility Standards

(Premier facilities must adhere to ALL standards, member facilities must adhere only to mandatory standards)

## Equine Facilitated Psychotherapy Standards

*** EFP1 MANDATORY**

**Is there written evidence that the mental health professional who provides direct treatment services meets the following qualifications:**

1. **Is credentialed (licensed, certified, etc.) as a mental health professional who has met the criteria to legally and independently provide psychotherapy and/or mental health counseling in the state (or country) in which the services are being delivered?**
2. **Maintains current professional liability insurance?**
3. **Is a PATH Certified Instructor or is assisted by a PATH Certified Instructor when conducting EFP sessions?**

*Interpretation:* Legal requirement requirements for the practice of psychotherapy and/or mental health counseling vary from state to state in the United States. It is the responsibility of the center to provide the necessary documentation of the ability to independently provide services in order to comply with their state and country laws and this standard.

**EFP2**

**Is there a written contractual agreement between the mental health professional and the center?**

*Interpretation:* The mental health professional, whether a paid employee, a contractor, or an unpaid provider, should have a written agreement that clearly delineates the relationship between the provider and the center. The contract may include performance expectations; compensation; who is responsible for professional and general liability coverage; length of employment, contract, or donation of services; tax responsibilities; termination guidelines (such as “at will”); reference to job description and other personnel policies.

**EFP3**

**Is there a written consent for evaluation and treatment specific to psychotherapy available on site for each client?**

*Interpretation:* The legal and ethical practice of psychotherapy/counseling requires formal, written agreements between the client (or their legal guardian) and the therapist prior to treatment being initiated.

**EFP4**

**Is there a written procedure in practice for release of information specific to psychotherapy and/or mental health counseling, to an outside source concerning a client receiving equine facilitated psychotherapy and/or mental health counseling?**

*Interpretation:* The mental heal professional providing treatment to a client in equine facilitated psychotherapy or mental health counseling may receive requests from outside sources requesting release of information. This information is considered confidential and must be treated as such. The mental health professional and the center need to have a procedure both written and in practice for dealing with such requests as well as a form (these forms should be HIPPA compliance) to facilitated the request. Such outside sources could include probation officers, other therapists, or child and family caseworkers.

*** EFP5 MANDATORY**

**Is there a procedure in practice which requires written documentation for personnel and volunteers to be:**

1. **Assessed for ability to work with particular clients or client populations?**
2. **Consistently involved?**
3. **Oriented to the equine-facilitated psychotherapy program?**
4. **Oriented to the needs of the specific clients whom they assist?**
5. **Involved in a post-session processing with the mental health professional, PATH Certified Instructor, and other pertinent people?**

*Interpretation:* The practice of EFP may necessitate the inclusion of specially screened and trained volunteers or personnel. Because of the nature of EFP programs, it is necessary for the volunteers or personnel to be thoroughly knowledgeable and experienced to provide the standard of service required in an EFP program. This includes a maturity level that must be assessed for appropriate behavior and conduct during EFP sessions. To obtain and maintain this standard, personnel, and volunteers must receive additional and ongoing training. They should be thoroughly oriented to the program's philosophy, mission/vision statements, intake criteria, cancellation policies, administrative structure/lines of communication, and other related program components.

EFP assistants should also receive very specific information related to client-centered issues, such as client behaviors, treatment plans, and confidentiality policies. (Examples: treatment goals, behavioral modification programs, early signs of behavior escalation, medication side effects, appropriate personal boundaries – physical, emotional, social). Consistency and commitment from the EFP assistants is necessary in order to provide stability of treatment to the clients. Post-session processing enables the team to review the session in order to address issues, concerns, and plan for the future.

**EFP6**

**Is there a procedure in practice to assess and address the supervision and consultation needs of the PATH Certified Instructor, the mental health professional, and the EFP assistants?**

*Interpretation:* Clinical supervision provides all those involved with the treatment process an opportunity to share, explore, and address issues related to countertransference (e.g. personal feelings that arise during client contact) as well as to process issues related to treatment provision (e.g. problem-solving to modify a treatment approach and to consistently implement the plan). The amount of supervision is left to the center and professional after the procedure to assess and address the clinical need for such supervision has been carried out.

*** EFP7 MANDATORY**

**Does the facility include a private area suitable for conducting a confidential interview or processing session with an equine facilitated psychotherapy or mental health client?**

*Interpretation:* In the circumstance in which a client is unable/unwilling to participate in equine activities; is decompensating psychiatrically or behaviorally, or just needs a confidential place to process or share feelings, it is essential that the therapist and client have a space in which to meet. The space does not have to be an office but should offer a place to sit down and have a private conversation.

**EFP8**

**Is there evidence of <u>written</u> documentation available at each activity site for each client:**

1. **A comprehensive intake assessment?**
2. **A treatment plan which includes specific psychotherapy/mental health counseling goals?**
3. **Periodic review?**
4. **Ongoing client progress notes?**

*Interpretation:* Typically, a primary mental health professional's documentation includes a comprehensive mental health assessment including chief complaint, psychosocial history, alcohol and drug history, symptom assessment, and diagnostics. The treatment plan specifies the needs of the client, goals of treatment, therapeutic modality, and time frames for achievement. The treatment goals and plans should indicate that reviews and updates are occurring on an ongoing basis. The file should indicate that a screening for possible behavioral/psychiatric precautions/contraindications was done initially and is addressed on an ongoing basis as needed. Ongoing process should be noted each visit. However, some mental health professionals see clients as an adjunct treatment and will have access to the above information through the primary therapist/agency. If this is the case, a signed release of information should be present in the client's file, and there should be evidence of periodic liaison with the primary therapist. The licensed/credentialed mental health treatment provider documents the client's status, therapeutic interventions employed, and client's responses to the intervention, while the PATH Certified Instructor documents the equine's status, responses, and horsemanship skills addressed in the

session. *(Both of these responsibilities may be addressed by the same person, if that person is dually trained).*

**EFP9**
**Does the program have a written procedure in practice for conducting research efficacy studies involving the program's participants, equines, personnel and personnel/volunteers?**

*Interpretation:* Programs involved in investigative studies are advised that they should comply with federally recognized standards and requirements for the conduct of research efficacy studies involving human and/or animal subjects.

## Equine Welfare Standards

**EQM1**

**Does the center have written criteria for the initial screening of prospective equines appropriate for the activities/therapies offered?**

*Interpretation:* General considerations of a prospective equine for any EAAT program should include but not be limited to the following:

- Age appropriate to the activity and workload
- Soundness appropriate to carry out the work
- Temperament
- Height, build, conformation and movement appropriate for the activity and participants
- Gender and herd dynamics

**EQM2**
**Does the center have written procedures for the:**

1. **Evaluation of the suitability of new equines prior to participating in center activities/ therapies?**
2. **Evaluation for the permanent removal of equines no longer/not suited for participating in center activities/therapies?**

*Interpretation:* Having written standard procedures for evaluation and removal of equines provides centers an unbiased tool for effective measurement of the abilities and suitability of all equines participating in center activities/therapies.

The written procedures for intake suitability should delineate the following:

- Who is the ultimate decision maker?
- Who performs the equine evaluations?
- What specific criteria/behaviors an equine must demonstrate prior to being placed into each activity/therapy, such as the following examples:

- Standing quietly at the halt for grooming, tacking, harnessing or other activities and
  during mounting, dismounting or puttting to for driving
- Behaving appropriately with personnel, volunteers, participants and other equines as
  well as wheelchairs and other adaptive equipment
- Responding appropriately to participant's aids, both natural and artificial, and the many different working conditions specific to the activity/therapy including sidewalk- ers or therapists working closely on both sides
- Tolerating hugging, hair pulling, loud noises, erratic behavior and other disturbances
- Accepting training specific to the equine activity or therapy

The written procedures for the permanent removal of equines that do not meet program qualification or are unable to continue working in program activities and therapies should delineate the following:

- Who is the ultimate decision maker?
- Who performs the equine evaluations?
- Specific criteria to be considered during the evaluation
- What becomes of the equine after removal (return to owner, sale, adoption, retirement, euthanasia, etc.) from center activities/therapies?

Once these written procedures are developed and implemented, they should be reviewed and modified as needed, as long as the written procedures match center practices.

**EQM3**

**Is there an implemented equine training and conditioning program that is specific to each equine- assisted activity or therapy at the center?**

*Interpretation:* An equine's satisfactory performance depends on being exercised regularly by experienced personnel who can effectively carry out the schooling and conditioning specific to the equine-assisted activity or therapy. Specific fears, sensitivities and vices of an equine should be addressed. Training and conditioning for a driving program should be done in a harness.

It is understood that the quality of the results achieved in hippotherapy are directly related to the quality of movement of the hippotherapy equine. It is important to maintain the suppleness and strength of
the hippotherapy equine through training and conditioning. In T-HPOT, due to increased stress, it is particularly important that the conditioning emphasize the elevation of the topline. The equine has to become gradually accustomed to the distribution of weight behind the center of gravity and desensitized to the input of the additional leg pressure near the flank.

***EQM4 Mandatory**
**Does the equine training and conditioning program for interactive vaulting also include the following:**

1. **Lungeing?**
2. **Equipment specific to interactive vaulting?**
3. **Mounted gymnastic exercises?**
4. **Continued conditioning?**
5. **Ongoing training to varied vaulting exercises and movement games on and around the equine?**

*Interpretation:* An interactive vaulting equine is one that is obedient on the long-line and can maintain a circle while in balance at all of the gaits being requested. A progressive training and conditioning program is one that allows the equine to build skills based on previous training sessions. Strength and endurance must be developed over a period of time for the equine to become comfortable performing the work that is being asked. The equipment and activities used are specific to the discipline and require additional training to ensure safety.

**EQM5**

**Is there an implemented procedure for the appropriately credentialed PATH Intl. Certified Professional to do the following?**

1. **Check for changes in physical soundness and behavior of each equine prior to its assignment to an activity or therapy session so as to ensure that the equine is able to perform as needed?**
2. **Make assignment and proceed with session as scheduled or remove equine from participation in session(s) until soundness and behavior issues can be addressed?**

*Interpretation:* Problems with sore feet, sore backs, sore stifles, etc., can affect an equine's performance and disposition; changes in behavior may be the first clues that point to an underlying problem. The equine's behavior and ability to work should be assessed prior to the participant's involvement in the activity or therapy session. Equines with underlying soundness issues or other health problems that negatively impact their ability to work should be removed from activity or therapy sessions until their problems can be resolved.

**EQM6**

**Are there implemented procedures to limit the maximum workday for an equine to a total of six hours made up of working sessions no longer than three continuous hours?**

*Interpretation:* A working session is a period of continuous use without any lengthy breaks. A record should be kept of the number of hours and in what capacity (e.g., therapeutic riding lesson, tandem hippotherapy, hippotherapy, psychotherapy, interactive vaulting, driving) each equine works.

**EQM7**

**Is there an implemented written policy on the number of hours that each equine can be worked in a hippotherapy program:**

1. **Per working session?**
2. **Per day?**
3. **Per week?**

*Interpretation:* A "working session" is a period of continuous use without any lengthy break. Special consideration should be given to equines that are involved with hippotherapy. The rationale for the schedule of each equine should be based on the size and type of participants served.

***EQM8 MANDATORY**

**Is there an implemented written policy to limit the workload of each interactive vaulting equine**
**specific to the individual equine?**

*Interpretation:* Interactive vaulting places additional stress on the equine. The equine is required to work on a circle, in balance, with vaulter(s) performing movements that require additional balance reactions
by the equine. Because of these additional requirements it is necessary to adjust the equine usage from the core standard describing equine usage. The equine's condition, pace and types of riders all enter into this decision. It is recommended that an equine be involved for a maximum of 60 minutes per lungeing/ vaulting session. There should be an interval of at least six hours between lungeing/vaulting sessions. An equine should be used for a maximum of six lungeing/vaulting sessions per week. Some equines may
not be conditioned sufficiently to maintain the outlined requirements.

**EQM9**

**Are there current, written equine health records available on-site that include the following:**

1. **Vaccinations?**
2. **De-worming schedule?**
3. **Hoof care?**
4. **Teeth care?**
5. **Sickness and injury?**

*Interpretation:* Equines shall be provided with proper foot care including trimming and/or shoeing on a regular basis. Equines shall be health checked, vaccinated and de-wormed on a

regular schedule. Teeth shall be inspected and floated as needed. Records should also be kept of any equine sickness or injury.

**EQM10**

**Is there a written feed chart for each equine easily accessible to the person feeding?**

*Interpretation:* Written feed charts for each equine help to ensure that equines receive proper daily rations. Feed charts should be easily accessible.

**EQM11**

**Are equines provided with a clean, plentiful supply of water?**

**EQM12**

**Does the center provide shelter to protect equines from inclement weather?**

Interpretation: Shelters may include two- to four-sided loafing or run-in sheds with roof or natural shelter available in the geographic location of the center.

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**Appendix B**

Sample Equine Evaluation (adapted with permission from CKRH)

# Ground Training Evaluation Form

Horse:
Trainer:
Type of Evaluation:

Training Leader:
Training Sidewalker(s):
Training Rider:

| WEEK | DATE | GROUND TRAINING AREAS | NOTES ON OBSERVED BEHAVIORS |
|---|---|---|---|
| 1. | | Stands quietly while being caught and haltered in the pasture. | |
| 1. | | Walks quietly and easily in from the pasture. | |
| 1. | | Stands quietly for grooming and picks feet up easily while ground tied or cross tied. | |
| 1. | | Quietly performs course tasks (cones, poles, barrels, etc.) at the walk and trot. | |
| 1. | | Accepts being led from both sides in the indoor arena. | |
| 1. | | Obeys voice commands: whoa, walk on, trot while being led. | |
| 1. | | Stands quietly for 2 min. in the indoor arena on lead. | |
| 1. | | Walks quietly through barn aisle while bathroom, office, and tack room doors are being opened and closed. | |
| 1. | | Walks quietly under big fans in aisle and arena while they are turned off. | |
| 1. | | Stands quietly in stall. (include time [minutes]) | |
| 2. | | Stands quietly during quick movements & loud noises made by the groomers while cross tied. | |
| 2. | | Stands quietly while being saddled and bridled while in cross ties. | |
| 2. | | Works quietly in the indoor arena with side-walkers continuously walking on both sides. | |
| 2. | | Stands quietly while playing basketball. | |
| 2. | | Works calmly and pays attention while other horses are present | |
| 2. | | Works calmly and pays attention while other horses are NOT present. | |

| | | | |
|---|---|---|---|
| 2. | | Walks quietly under big fans in aisle and arena while they are turned on. | |
| 2. | | Remains calm while turned loose in indoor arena. | |
| 3. | | Stands quietly ground tied in aisle with moderate correction. | |
| 3. | | Works quietly while wearing special adapted equipment: surcingle, freedom rider, etc. | |
| 3. | | Walks quietly while being led around future sensory trail area. | |
| 3. | | Works quietly in indoor arena with side-walkers continuously leaning on both sides. | |
| 3. | | Stands quietly while large therapy ball is rolled towards them and touches all legs. | |
| 3. | | Stands quietly while shown plastic bag and pom pom and they touch the horse's body. | |
| 3. | | Stands quietly while hand held bells and other noisemakers are played with and brought close to the horse's body. | |
| 3. | | Stands quietly while slinky is played with around and touching horse. | |
| 3. | | Stands quietly while bubbles are blown towards horse's face & body. | |
| 3. | | Stands quietly for rinsing off in wash stall if temp is 70+ | |
| 3. | | Stands quietly while a hula-hoop is brought towards them and touches all legs. | |
| 4. | | Stands quietly for grooming & tacking with 3-4 people touching (crowding) the horse. | |
| 4. | | Works calmly while sidewalker holds flag, plastic bag, or pom pom and walks around arena. | |
| 4. | | Walks quietly over plastic and plywood. | |
| 4. | | Stands quietly while large therapy ball is rolled towards them, touches all legs, is raised over back and head. | |
| 4. | | Stands quietly while hula-hoop is brought towards them, touches their legs, and is raised over back and head. | |
| 4. | | Stands quietly while balls are tossed from instructor to sidewalker and between the sidewalkers (over the horse's back) | |
| 4. | | Stands quietly for full bathing in wash stall if temp is 70+ | |

| | | | |
|---|---|---|---|
| 5. | | Stands quietly while mounting a rider from stationary mounting area and portable block. | |
| 5. | | Works calmly with rider & sidewalkers while walking/trotting in the indoor arena. | |
| 5. | | Works calmly with rider & sidewalkers while walking/trotting on trail. | |
| 5. | | Works calmly while rider holds plastic bag or pom pom and walks around indoor arena. | |
| 6. | | Remains quiet during grooming and training when a loud radio is being used. | |
| 6. | | Remains calm through rider movements (around the world, touching ears/tail, etc.) & loud noises while walking around arena. | |
| 6. | | Remains calm while rider pulls one direction on halter and leader pulls another direction (simulate confusion) | |
| 6. | | Stands quietly ground tied in aisle with minimal to no correction. | |
| 6. | | Responds to voice commands (whoa, walk on, trot) and change of pace while leading in arena with no lead rope. | |

# Appendix C

Sample Program Structure (by week)

**Week 1 therapy session: Wise Mind**
Goals:
1. Introductions
2. Establish group rules
3. Learn the "Wise Mind"

**Week 1 EAT: Herd Behavior and Recognizing Emotions**
Goals:
1. Explain the different ways horses express emotion (ear pinning, ears forward, expressive eyes, tail swishing, teeth bared, pawing, etc.)
2. Observe herd behavior
    -Discuss dominant vs. submissive horses, how horses assert themselves, expectations of which is dominant and which is submissive
3. Picking a Partner
    -Youths go into the ring or field and "choose" horses (really the horses choose the kids)
    -This horse becomes their partner for the remainder of the sessions.
4. Establish Rules

**Week 2 therapy session: Emotion regulation/Mindfulness**
Goals:
1. Understand concepts of mindfulness
2. Begin building adaptive coping for emotion regulation through ACCEPTS model

**Week 2 EAT: Grooming and Leading (learning basic horsemanship)**
Goals:
1. Understanding how body language affects the horse
    -Confidence, maintaining correct position, and using positive praise will build horse's trust
    -Swearing, hitting, or giving up will not accomplish goals needed to move horse from point A to point B.

**Week 3 therapy session: Continue mindfulness and introduce interpersonal effectiveness**
Goals:
1. Mindfulness practice
2. Discussion of what it means to be effective in a relationship with others

**Week 3 EAT: Joining Up** (Joining up is a technique used to establish trust between humans and horses)
Goals:
1. Understand how body language helps build trust
2. Build assertive communication skills

3. Begin problem solving activities

**Week 4 therapy session: Continue interpersonal effectiveness**
Goals:
1. DEARMAN
2. First family session

**Week 4 EAT: Teamwork and communication**
Goals:
1. Utilize effective communication
2. Teamwork
3. Understanding leadership qualities

**Activity Utilized: Horse billiards**

-Designate areas in ring with cones or poles, group as a whole must separate the herd and move each horse into a particular "pocket"

-Group may only talk during designated "time outs" called out by the therapist and cannot touch the horse

-Group will lose a time out every time someone uses inappropriate behavior (i.e. swears, hits horse, etc.)

-Leaders emerge, group learns how to communicate effectively, negative consequences of being impulsive, not following instructions, etc.

**Week 5 therapy session: Effective goal setting and how to overcome obstacles**
Goals:
1. Establish list of 5 achievable goals for immediate future
2. Establish list of 2 goals for future self

**Week 5 EAT: Goal setting (First week of partial mounted activity)**
Goals:
1. Create obstacle course and lead horse through the obstacles to reach their goal
2. Learn how to tack and mount the horse safely

**Activity Utilized**

-Youth create obstacles that represent real life hurdles on the way to a goal (i.e. if completing high school is a goal, kid may place barrels to weave through representing poor home life, problems with learning, etc. or poles to step over representing passing math test, etc.)

**Week 6 therapy session: Timelines**
Goals:
1. Each youth will create a Timeline project detailing their life up to the current day.
2. Discussion of life events, barriers, and obstacles that have been overcome

**Week 6 EAT: First session of mounted riding** (provided kids have "earned" this right from their horse through good behavior)
Goals:

1. Tack horse independently (or ask for help)
2. Mount horse successfully.
3. Ride for one hour

**Activity Utilized:** The focus of this session will be on mounted riding, as it will take the group longer to get going their first lesson. They will begin learning basic riding skills.

**Week 7 therapy session: Distress Tolerance**
Goals:
1. Explain distress tolerance
2. Distress tolerance activities

**Week 7 EAT: Desensitization training, mounted riding**
Goals:
1. Youth work with horses on desensitizing them to a "Scary" object, i.e. tarp, plastic, etc.
2. Discuss distress tolerance, building empathy, tolerating annoyances
3. Mounted riding through obstacles

**Week 8 therapy session: Family session #2**
Goals:
1. Discuss progress
2. Identify challenges
3. Communication activity

**Week 8 EAT: Family**
Goals:
1. Pick a skill learned to demonstrate to family members
2. Teach your family something about horses
3. Demonstrate mounted riding skills

**Week 9 therapy session: Building Trust**
Goals:
1. Identify pros/cons of trusting
2. Identify qualities of a trust worthy individual
3. Trust partner activity

**Week 9 EAT: Working Together**
Goals:
1. Build trust with a group member
2. Use effective communication skills

**Activities Utilized:**
1. Unmounted activity: pairs work together to tack horses, one person blindfolded, the other gives instructions
2. Mounted activity: Riding in pairs

**Week 10 therapy session: Decision Making and Problem Solving**
Goals:
1. Discuss how to make effective decisions
2. Create a decision making scenario
3. Respond to another group member's scenario

**Week 10 EAT: Following directions/problem solving**
Goals:
1. Follow 2-3 step directions to completion of a task
2. Problem solve through pattern work

**Activities Utilized**
1. Unmounted activity: Showmanship
2. Mounted activity: Riding in a horseshow (i.e. must follow instructions, patterns, etc.)

**Week 11 therapy session: Family Session #3**
Goals:
1. Utilizing positive praise and positive affirmations of self
2. How to achieve success as a family

**Week 11 EAT: Family Day Horseshow**
Goals:
1. Compete in either showmanship (non-mounted) or horsemanship (mounted)
2. Vote in Positive Mock Elections

**Week 12 therapy session: Wrap-up**,
Goals:
1. Overview of what was learned.
2. Identify one person who taught you something new.
3. "Discharge" coin ceremony (Pass around a gold coin to each member. Everyone says something positive to the person who has the coin.)

**Week 12 EAT: Wrap-up and Goodbye**
Goals:
1. Paint a picture or write a letter on your horse
2. Choose an activity to spend one on one time together with your horse
3. Discussion of how to say good-bye

## Appendix D

Proposed Program Budget *without* PATH Premier Affiliation

**Monthly Costs:**

Stabling Costs (per horse).....$350
x 6 horses.....$2,100
Blacksmith (semi-monthly) per horse
trim.....$35
shoes.....$80
Feed (Hay/Grain for 6 horses).....$200
Staffing for horse care.....$1,120
(estimated at $10.00/hour, 4 hours of work per day)

Total Monthly Costs (including blacksmith trims).....$3,980
Total Yearly Costs.....$47,760

**Miscellaneous Costs:**

Certified Therapeutic Riding Instructor fee.....$50/session
(must be present for each EAT session if clinician is not trained in EAT)
Veterinary fees
Vaccinations (1x/year for 6 horses).....$600
Worming (2x/year for 6 horses).....$168
Basic Medical Supplies.....$200
(bandages, ointments, medications, etc.)

Total Yearly Miscellaneous Costs.....$3,068
(Estimated for 4 sessions/month)

## Appendix E

Sample Pre-Treatment Survey

Thank you for joining our program! We would appreciate if you would take the time to answer this short survey. This information will be kept completely confidential. These initial questions provide us with basic information about you. Please circle the response that best applies to you.

**1. What is your age?**

11-13 14-15 16-18

**2. What is your grade in school?**

6th 7th 8th 9th 10th 11th 12th Not currently enrolled in school.

**3. How would you rate your behavior in school?**

Excellent Good Fair Poor

The next set questions help us gather information about your current behaviors. Please remember that you do not have to answer any questions that make you uncomfortable. Please circle the response that best applies to you.

**4. How many times have you fought (arguing or physically fighting) with a parent or caregiver in the past 7 days?**

0-1 2-3 4-5 6+

**5. How many times have you been punished by a caregiver for something you did in the past 7 days?**

0-1 2-3 4-5 6+

**6. How many times have you been punished at school for something you did in the past 7 days?**

0-1 2-3 4-5 6+

**7. How many times have you lied to someone to get what you wanted in the past 7 days?**

0-1 2-3 4-5 6+

**8. Have you ever been in trouble with the law?**

Yes No

**9. If you answered yes to #8, how many times have you been in trouble with the law?**

0-1 2-3 4-5 6+

This last set of questions is to gather information on how you feel about coming to this program. Please remember that you do not have to answer any questions that make you uncomfortable. Please circle the response that best applies to you.

1= Strongly Disagree 2=Disagree 3=Neither Agree nor Disagree 4=Agree 5=Strongly Agree

**10. I need help learning how to control my behavior.**

1 2 3 4 5

**11. I am only here because someone is forcing me to be here.**

1 2 3 4 5

**12. I may be able to get something positive out of this experience.**

1 2 3 4 5

## Sample Post-Treatment Survey

Thank you for completing our program. We really enjoyed having you participate! In order to continue improving the program for future participants, we would appreciate if you would take the time to answer this short survey about your experience. This information will be kept completely confidential. Please do not include your name on this survey.

These initial questions provide us with basic information about you. Please circle the response that best applies to you.

**1. What is your age?**

11-13 14-15 16-18

**2. What is your grade in school?**

$6^{th}$ $7^{th}$ $8^{th}$ $9^{th}$ $10^{th}$ $11^{th}$ $12^{th}$ Not currently enrolled in school.

**3. How would you rate your behavior in school?**

Excellent Good Fair Poor

The next set questions help us gather information about your current behaviors. Please remember that you do not have to answer any questions that make you uncomfortable.

**4. How many times have you fought (arguing or physically fighting) with a parent or caregiver in the past 7 days?**

0-1 2-3 4-5 6+

**5. How many times have you been punished by a caregiver for something you did in the past 7 days?**

0-1 2-3 4-5 6+

**6. How many times have you been punished at school for something you did in the past 7 days?**

0-1 2-3 4-5 6+

**7. How many times have you lied to someone to get what you wanted in the past 7 days?**

0-1 2-3 4-5 6+

Finally, the last set of questions help us determine how you felt about the program overall. Please circle the response from 1-5 that best fits your response.

1= Strongly Disagree 2=Disagree 3=Neither Agree nor Disagree 4=Agree 5=Strongly Agree

**8. I learned something from this program that I will use in the future.**

1 2 3 4 5

**9. I feel my behavior has gotten better since participating in the program.**

1 2 3 4 5

**10. I enjoyed participating in this program.**

1 2 3 4 5

**11. I would recommend this program to other kids struggling with similar issues as me.**

1 2 3 4 5

**12. I felt that my therapist treated me with respect.**

1 2 3 4 5