Equine-Assisted Psychotherapy and Adolescents

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Abstract

Adolescent depression is a complicated diagnosis affecting an increasing number of adolescents in the United States. Mental health professionals utilize a range of techniques to treat adolescent depression; however, due to the large array of symptoms and the often difficult nature of these clients, professionals are always looking for more options for treatment. Equine-assisted psychotherapy is a technique where clients partner with horses through a variety of activities meant to address their depressive symptoms and build their social and relational skills. This type of psychotherapy combines the most effective parts of existing therapies, works within a limited number of sessions and can be used in conjunction with other interventions. Equine-assisted psychotherapy creates a unique environment that fosters change and growth for adolescents experiencing depression. Although working with horses in therapy is a relatively new idea in the United States, initial research supports its effectiveness with the adolescent population.
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Equine-Assisted Psychotherapy and Adolescents

Chapter 1: Adolescent Depression

Adolescents in the United States, as well as those worldwide, are being diagnosed with depression during their teenage years more frequently than ever before. “Lifetime depression rates rise to 14% for adolescents ages 15 to 18 from an average of less than 3% in childhood” (Hamrin & Magorno, 2010, p.103). In addition to the challenges every young person faces when entering this stage of life, many adolescents struggle with a sense of hopelessness, fear, anxiety and overwhelming irritability that accompany adolescent depression. “Studies specific to the adolescent population indicate that approximately 28% of adolescents have a personal history of depression” (Lenz, Coderre, & Watanabe, 2009, p.172).

Depression cannot be connected to one individual cause. It may be a result of an individual’s genetic make-up (Carr, 2008, p.5), or a lack of serotonin in an individual’s brain that helps regulate emotion. Studies of adolescents diagnosed with depression and other behavioral disorders such as Conduct Disorder (CD), Oppositional Defiant Disorder (ODD), and Attention Deficit Hyperactivity Disorder (ADHD), indicate low levels of serotonin or serotonin absorption in the brain (Mpofu & Conyers, 2003, p.38). Given this biological commonality, adolescents who struggle with any of these behavioral disorders are likely to experience multiple or co-morbid diagnoses. “Among the most common disorders that have been demonstrated to co-occur with CD are Attention-Deficit-Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), substance use disorders, depression, and anxiety disorders” (Stahl & Clarizio, 1999, p.42). In fact, 21 to 49% of adolescents who are diagnosed with major depression will also be diagnosed with conduct disorder (Rapp & Wodarski, 1997, p.83). How chemicals process in the brain indicate a biological connection to depression and other behavioral disorders.
Additional research on adolescent depression associates environment to their mental health diagnoses. Having a depressed parent, an emotionally unavailable parent or being in families where there is an immense level of conflict increases adolescents’ risk of experiencing clinical levels of depression (Whitbeck, Hoyt & Bao, 2000). Family stressors have also been linked to a depression diagnosis. “Children, particularly girls, whose parents are divorced are at greater risk [for depressive symptoms] as are children in lower socioeconomic environments and children in economically distressed families” (Whitbeck, Hoyt & Bao, 2000, p. 721). Abuse or significant traumas are associated with adolescent depression (Whitbeck, Hoyt & Bao, 2000).

Other authors suggest it is the culture of the United States that feeds the surge of adolescent depression and hopelessness. In a country obsessed with making a profit, always having more, and working for individual gain, adolescents struggling to belong often feel discouraged when faced with this picture of adulthood. “The faith encouraged by consumer culture is a faith in money, technology, and consumer products, and it is a faith that often has adverse side effects, including addiction and withdrawal. Americans who don’t share the faith of such a culture will likely feel alienated from society and alienation- from either one’s humanity or one’s surroundings- is painful and be a source of depression” (Levine, 2011, p.32).

Much like their biological connection, similar reasons are given for the diagnoses of CD, ODD, and ADHD in adolescents, including parents’ mental health, family abuse or trauma and the results of being economically depressed. The reasons for these behavioral disorders seem to be a combination of biology, environment and ultimately each individual’s personality. Regardless of the reason, in the United States, the adolescent rate of depression and similar behavior disorders continues to increase and lead to dire outcomes when left untreated.
Outcomes of Teenage Depression and Behavioral Disorders

The United States has seen a dramatic increase in adolescent suicide over the last 40 years. From 1950 to 1990, the suicide rate for adolescents ages 12 to 18 increased over 300% (Hamrin & Magorno, 2010, p.107). In 2004, suicide was the third leading cause of death for 10 to 24 year olds, resulting in 4,599 deaths in the U.S. (Hamrin & Magorno, 2010, p.107). If adolescents experience the onset of depression in their teenage years, the risk increases for their symptoms not only to remain but worsen over time. “Severe emotional disorders not curtailed in adolescence often lead to serious psychopathology in adulthood” (Ewing, MacDonald, Taylor & Bowers, 2007, p.59).

When adding other behavioral disorders such as CD, ODD and ADHD, to adolescents’ life, the likelihood of depression, involvement with drugs, and risk of criminal activity increase exponentially (Cukrowicz, Taylor, Schatschneider, & Iacono, 2006, p. 156). “Adolescents diagnosed with conduct disorder and depression have been found to have a higher number of problems of all kinds than do those diagnosed with a single disorder. Comorbid adolescents have also been shown to have a worse prognostic picture, more peer rejection, and a higher risk for adult criminality” (Rapp & Wodarski, 1997, p.84). Studies indicate that 60% of adolescents with two diagnoses report using drugs and alcohol (Rapp & Wodarski, 1997). The overwhelming fact is that multiple diagnoses need multiple types of treatment. “Among teenagers, the prevalence of multiple disorders is far more common than that of a single disorder” (Stahl & Clarizio, 1999, p.47).

The likelihood that mental health practitioners will encounter adolescents with these combined diagnoses exists. Professionals might also expect to see adolescents with different diagnoses clustered into the same treatment groups because of similar symptoms. Given these
alarming statistics and the complexity of adolescent mental health, professionals seek new and innovative ways to treat adolescent depression including engaging these young clients, reducing their symptoms and actively improving their lives. “While the majority of youngsters recover from a depressive episode within 1 year, they do not grow out of their mood disorder” (Carr, 2008, p. 5).

**Intervention: Equine-Assisted Psychotherapy (EAP) and Why It Works**

One particular intervention being studied is equine-assisted psychotherapy (EAP). Although many types of animal-assisted therapy exist, equine work is unique in its effectiveness and popularity with the adolescent population (Hallberg, 2008; Rector, 2005). The horse is a powerful, intimidating creature. It adheres to its instincts as a herd and prey animal, acutely aware of its surroundings and the intention of those around it. Given this biological make-up, horses become amazing therapy partners. They can ascertain information about clients that other human beings and therapies cannot. They can tell when clients are not being authentic, saying one thing with their words and something else with their body. Since horses cannot communicate using human language, they attune to body language per their prey instincts in order to protect themselves and their herd. Adolescents are unable to “fool” a horse with fake words or attitude. The horse can see through that façade and immediately meet clients in their struggle.

In other therapy settings, this type of reflection of behavior is called mirroring. Therapists seek to create a feedback loop where clients can “see” their behavior and its consequences within the therapeutic setting. Horses do the same thing naturally and automatically. “Horses live in a congruent and coherent state most of the time. Therefore when people enter into their space and act or function in ways that are not congruent or coherent, the horse may react, reflecting to the human how the horse perceives them” (Hallberg, 2008, p.165).
The therapeutic interaction between clients and horses can also be explained using the concept of the Sternberg’s love triangle. Developed by Robert Sternberg in the 1980’s, the love triangle theory describes the steps people go through to create a committed, caring bond with another human being (Sternberg, 1986). The same process happens when a person works with a horse. In Sternberg’s initial work and the continued extrapolation of this concept by Dr. William Premo, three triangles make up the components of healthy human relationships: commitment, intimacy and passion (Sternberg, 1986; W. Premo, personal communication, June 27, 2011). To build commitment, people must establish comfort, confidence, and competence to function successfully within the relationship. Equine-assisted psychotherapy (EAP) helps clients with all of these components. They develop a relationship with their horse partner, becoming comfortable in their role. From this point, clients gain new skills while working with the horse, improving their confidence and competence within each session. To build intimacy, people must develop an ability to care for others, share their emotions, and be open to receiving emotional feedback (Sternberg, 1986). In EAP, clients work with the horse, a non-judgmental, honest, instinctual creature, building an alliance of trust and integrity. EAP helps build the passion component of the triangle as well, which includes having new experiences, excitement and energy. Because most adolescents have never worked with a horse in this kind of partnership, even if they have riding experience, the EAP experience is new. Being around a horse is exciting because of how alert and in the moment the adolescent must be for safety purposes. The horse and the clients constantly exchange both positive and negative energy. Adolescents can take these experiences with their horse partners and transform them into meaningful change in their relationships with people.
Adlerian psychology’s framework for behavior also demonstrates the effectiveness of EAP. From the Adlerian perspective, every behavior serves a purpose. Alfred Adler and his student, Rudolf Dreikurs, believed there were four goals of children’s misbehavior, all of which stemmed from a desire to belong (Ansbacher, 1988). Instead of pursuing belonging in a useful way, children who exhibit these four behaviors—undue attention, power, revenge, and demonstration of inadequacy—have found a useless way to belong in their world. Although this model does not replace individual observation, professionals can make some assumptions about the purpose of these behaviors. Horses seem to know the purpose of clients’ behavior from the moment their interaction begins. They can see past the behavior itself. This concept will be discussed further in chapter 2 to highlight the effectiveness of EAP.

Rather than clients contemplating their diagnosis, symptoms or behaviors over time with a therapist, the horse interaction provides immediate feedback to clients about their behavior. Clients interpret the horse’s response to them using the framework of their current life situation, and with the therapist’s help, use this information to create the change for which clients are ready. Equine-assisted therapy is particularly effective for adolescents because their interactions in therapy focus on the horse and their own interpretations of their problem instead of an adult telling them what is wrong and how to fix it.

EAP deserves further research because it seems to work faster than traditional talk therapy in creating and maintaining change within clients. With the boundary of limited therapeutic sessions created by the insurance industry, it is important for any intervention to work quickly and effectively (Levine, 2011). Adolescents working with horses have been able to define their struggle, work with their horse partner on solutions, and decrease the negative impact their problem has had on their life within the insurance-approved timeframe. Horses can
connect with these clients on multiple levels, eliciting immense change and movement from illness to health.

Horses are especially effective in helping people understand and overcome fear and aggression, bringing harmony and alignment between the unconscious and the conscious mind, and developing conscience and an awareness of the effects of one’s behavior on others. Through their uncanny ability to ‘mirror,’ horses spark a deep understanding of our behavior, and inspire us to a more spiritual, mystical, and philosophical orientation to life. (Dossey, 1997, p.xx)

**Statement of the Problem**

Equine-assisted psychotherapy exists as one effective treatment for adolescent depression. Mental health professionals continue to find that current treatments do not work as effectively as desired within the time constraints set by insurance companies. They seek an intervention that can work within this limited time frame and successfully serve depressed adolescents. Equine-assisted psychotherapy accomplishes therapy outcomes within the allotted time and increases clients’ awareness of their behaviors, sense of commitment and intimacy and guides them to the useful side of life.

**Purpose of the study**

The purpose of this study is to determine whether or not equine-assisted psychotherapy reduces the reported symptoms of depression in adolescents by approximately 50% following the participation in an EAP group. Horses can identify and address the four goals of misbehavior in adolescents with depression and other behavioral disorders. By focusing the professional observations on the horse interactions, this researcher hopes to further determine that the use of a horse as a therapeutic partner creates the most positive change for a client.
Hypothesis

**Hypothesis 1.** EAP does reduce depressive symptoms by 50% in adolescents age 12 to 18 following an 8 to 10 week therapy group using EAP with 8 to 10 peers.

**Hypothesis 2.** Through observing horse behavior, the therapist can identify the goal of misbehavior for an adolescent with a diagnosis of depression.

Significance of Study

EAP has gained creditability and recognition in the therapy community in the United States over the past two decades. However, it is a newer therapy and further research is needed to prove its efficacy. In addition to ensuring an effective treatment using horses is available, in order for EAP to continue as a viable option for professional and client alike, it must be covered by health insurance.

The increasing population of adolescents being diagnosed with depression creates a need for additional, effective treatments. Furthermore, with the increase in dual or comorbid diagnoses for this age group, mental health professionals will need to be more creative with their approach to treatment. Horses have the ability to flex to clients’ needs so depressed adolescents with comorbid diagnoses of ADHD and Conduct Disorder, can have as effective a session as adolescents with the diagnosis of only depression within the same group interaction. Clients receive what they need in that moment from their horse partners. Being able to combine adolescents into one group without decreasing the impact of therapy is cost effective and practical for both clients and mental health professionals.

**Definition of Terms**

*EAP (Equine Assisted Psychotherapy):* mental health treatment facilitated by a mental health professional, an equine specialist and a horse that can be experienced individually or in groups
with clients. The therapy involves extensive ground work and some mounted work, however the focus is on building the relationship between the client and the horse.

EAP is guided by treatment plans and diagnoses, and is facilitated by a licensed mental health professional and a qualified equine professional. The horse professional is primarily responsible for safety, and for observing the behavior of the horse, because the horse’s reaction to the client is as powerful as the client’s reaction to the horse. The mental health professional is primarily responsible for the therapeutic aspects of the session, although it should be noted that in practice it is quite common for these two roles to overlap. (Shultz, 2005, p.13)

Adolescents: For the purposes of this paper, adolescents will be defined as people between the ages of 12 and 18 years of age.

Ground work: The interaction occurring between a client and a horse when the client is on the ground with the horse.

Mounted work: The interaction between a horse and a client when the client is sitting or riding the horse.

Mental health specialist: A person that holds a professional license within the mental health field, i.e. licensed marriage and family therapist, social worker, professional clinical counselor, professional counselor, etc.

Equine Specialist: people specifically educated in horse behaviors with extensive time working with horses. Their primary role is watching the horses and ensuring safety within EAP or other horse involved work. Their experience and expertise are verified by the length of employment in the field, and certifications with national equine organizations.
Assumptions and Limitations

This researcher assumes that equine-assisted psychotherapy works in creating change. The goal of the research is to survey a small sample of mental health professionals to compile their professional opinions on the results of EAP with adolescent depressed clients. Due to the fact that these professionals are being surveyed after their groups have concluded, the accuracy of their recollection is a limitation. All the surveyed mental health professionals work with horses in a therapeutic setting and do so largely because they love and respect these animals. This affection may make them biased about this therapy, and they might see improvement even when it is not present.

This research will focus on group psychotherapy partnering with horses. Although individual therapy using EAP is equally effective, the results from these sessions would not provide a representative sample of how EAP affects the depressed adolescent population as a whole.
Chapter 2: Literature Review

Depression in Adolescents

Adolescent depression exists as a serious and growing problem in the United States and around the globe. Previous research focused on adults, and today mental health professionals are aware that adolescents experience depression differently as evidenced by differing symptoms and reaction to treatments. In comparison to the symptoms associated with depression in adults such as sadness and lack of energy, adolescents experiencing depression present with a wider range of symptoms.

Adolescents may present with irritability, anger, poor school performance, social withdrawal, loss of energy, psychomotor retardation, apathy, feelings of hopelessness and guilt, sleep disorders (particularly hypersomnia), appetite and weight changes, isolation, difficulty concentrating, substance abuse, and/or poor social skills. (Lenz, Coderre, & Watanabe, 2009, p.172)

Taking into account the multitude of symptoms combined with the adversarial relationship many adolescents have with adults during their teenage years, treatment for adolescent depression has to be prepared to address these issues in order to be effective. “Many ‘at risk’ adolescents view therapists, teachers, or adults in general with mistrust and apprehension” (Ewing, MacDonald, Taylor & Bowers, 2007, p.59). In addition to evaluating adolescent response to existing treatments for depression, an expansion of treatment options needs to be offered to provide the most support and success to these individuals.

Depression with other diagnoses. As mentioned in Chapter 1, adolescents are apt to have multiple diagnoses compared to adults. This combination presents a more complex array of
symptoms and more challenging picture of treatment. The following behavioral disorders are often diagnosed with adolescent depression or present very similarly to depression.

Already troubled adolescents often receive a diagnosis of Conduct Disorder. It describes the absolutely defiant adolescent who seemingly rages spontaneously at the world. “Conduct Disorder (CD), defined as a pattern of antisocial behaviors such as physical aggression, deception, and violation of others’ property rights, has been characterized in existing literature as one of the most disturbing psychopathological conditions due to its often high consequences of physical harm and property loss” (Stahl & Clarisio, 1999, p.41). Adolescents with this diagnosis often experience depressive symptoms such as irritability and social isolation as a result of their aggressive, frightening behaviors. Similarly, oppositional defiant disorder (ODD) in adolescents manifests by intense defiance of the norm and an overwhelming need to be different even if that means being destructive. Due to the volatility and intensity of these diagnoses, these adolescents often experience symptoms of depression, resulting in referral to therapy.

Attention-deficit/hyperactivity disorder (ADHD) appears as a common diagnosis for children and adolescents. “[It] is a diagnosis that encompasses chronic symptoms of hyperactivity, inattention, or impulsivity” (Cukrowicz et al., 2006, p.151). Children and adolescents seem unable to concentrate at school, flounder academically and find it difficult to belong within the constraints of a structured, sit-still environment. This diagnosis combined with CD, results in adolescents who appear depressed. These adolescents struggle to balance their inner hyperactivity and lack of focus, often resulting in behavior that appears destructive and manipulative. As a result, many of these adolescents are referred to therapy as well.

Whether it is a diagnosis of depression, conduct disorder, oppositional defiant disorder or ADHD, these adolescents all struggle with their ability to function within society. They have
trouble socially, academically, legally and emotionally finding their place in the world. Their risk of abusing drugs and alcohol, breaking the law, and committing suicide increases remarkably (Cukrowicz et al., 2006). “These data suggest that internalizing (i.e. depression) and externalizing disorders (i.e., disruptive behavior) often co-occur, thus illuminating the need for effective differential diagnosis methods and interventions to address multiple problems” (Stahl & Clarizio, 1999, p.46).

**Adlerian 4 goals of misbehavior.** Looking at adolescent mental health through an Adlerian lens, every behavior has a purpose and being aware of that purpose can provide a window into the problem that person is experiencing. Rudolph Dreikurs proposed four different goals of misbehavior that children and adolescents demonstrate as they try and find their place within the world: undue attention, power, revenge and demonstration of inadequacy (Ansbacher, 1988). Recognizing these behaviors and the typical parental response to these behaviors allows parents and mental health professionals to respond differently to adolescents and successfully intervene, teaching them different ways to belong. “However, as children advance through their teens to young adulthood, their thoughts and behaviors become more complex and their mistaken goals are less obvious to adults” (Ballou, 2002, p.156).

Most adolescents struggle during this time of their life, but are able to find a useful way of fitting in and feeling like they belong. There are an increasing number of adolescents that get stuck and are unable to find their purpose or place. “They see few constructive opportunities and so, discouraged, they turn instead to the useless side of life. Adopting the notion that pursuing any goal- even if it is delinquent, illegal, and troublesome- is preferable to no goal at all, they can at least gain recognition from adults and peers” (Ballou, 2002, p.158). In order to feel some sense
of belonging, they act out in ways to get attention, gain power, get back at the world, or disengage completely.

The four goals of misbehavior will be discussed below including examples of the typical parental response to behaviors and how adolescents with the previously mentioned diagnoses—depression, conduct disorder, oppositional defiant disorder, and ADHD—might demonstrate these goals. In reality, any of the goals could be seen in any of these diagnoses. This framework uses a unique method for recognizing adolescent behavior by focusing on the parental response to identify the specific behavior. In an effort to deconstruct this concept, this researcher has made general associations between specific diagnoses and goals of misbehavior. An important clarification needs to be made that this researcher is not suggesting that any of these diagnoses are only behavior related or diminishing the sincerity of the adolescent’s struggle as well as that of his or her family and community. Discussing the mistaken goals of behavior is simply a different means of viewing the adolescents’ behavior in an attempt to help them recognize their struggle and negotiate new ways of being. At this point, only the behaviors will be discussed but further into this chapter, specific interventions partnering with horses to address these behaviors will be analyzed.

The first goal of misbehavior is undue attention. This goal represents a need to be noticed beyond routine interaction. The belief of an adolescent demonstrating this goal might be “I count (belong) only when I’m being noticed or getting special service. I’m only important when I’m keeping you busy with me” (Ballou, 2002, p.157). Adolescents will alter their dress and change their behaviors, going to extremes to draw parent and peer attention in any way possible. Parents often respond to this behavior with annoyance, irritation or frustration. In order to be considered useless, this behavior becomes consuming, and travels beyond a “normal” adolescent desire to
try new looks or ways of being. Adolescents might shout out something in the middle of class, jump up suddenly from their seat, or be the kid who refuses to answer any question when asked. All of these behaviors are meant to give adolescents a place to belong; a role. This goal can be associated with any of the diagnoses discussed above since the symptoms or behaviors that characterize each diagnosis all draw parent, peer and professional attention.

The most likely link from the goal of undue attention to a diagnosis is ADHD. When adolescents are engaging in this goal and get the attention they are seeking, the behavior stops temporarily (Ballou, 2002, p.157). Adolescents with ADHD are not always demonstrating their diagnosis. They can operate differently in different settings. A study conducted by Cukrowicz et al. indicated that adolescents diagnosed with ADHD alone and ADHD with CD could present themselves as highly extroverted, confident individuals depending on their environment and treatment (2006). Furthermore, the symptoms of ADHD as discussed earlier all focus around attention or lack thereof. This information is useful when working with adolescents diagnosed with ADHD because it can help adolescents understand their behavior, professionals and caregivers can gain insight, and everyone can see possible alternatives or methods to funnel the behavior in a more useful, productive way.

The second goal of misbehavior is power. The belief for an adolescent expressing this goal is “I belong only when I’m the boss or in control, proving that no one can boss me. You can’t make me” (Ballou, 2002, p.157). These adolescents fight about everything, especially with those people they view as authority figures: parents, teachers, even therapists. They do not back down from an argument and seek to get an upset reaction from their opponent. Parents typically respond to this behavior by getting angry, feeling provoked or challenged. Adolescents might argue about where to sit, how long the break in session should be, or how the snack should be
distributed. This goal is most closely associated with the diagnosis of ODD. Adolescents with ODD adhere to this description of behavior perfectly. They argue for what seems like the sake of arguing. The diagnosis and even the name of the disorder characterize them as defiant.

The third goal of misbehavior is revenge. These adolescents are absolutely frustrated with the world. They feel wronged, often betrayed or overlooked by the rest of society. “I don’t think I belong, so I’ll hurt others as I feel hurt. I can’t be liked or loved” (Ballou, 2002, p. 157). These adolescents are often avoided because their behavior results in other people feeling hurt. Parents typically respond to this behavior by feeling hurt, disappointed, or disgusted. These adolescents might tell a parent or therapist that they look fat, are ugly and stupid, and never really helped them with anything. Their comments are aimed to inflict pain because they themselves are feeling hurt and disconnected. CD is the diagnosis that fits best with this goal of behavior. Adolescents who have a CD diagnosis take this behavior to the extreme; stealing, sometimes setting fires, and physically engaging in destructive behavior (Rapp & Wodarski, 1997).

The fourth goal of misbehavior is the demonstration of inadequacy. These adolescents feel disconnected from the world and hopeless about becoming part of it again. The goal to belong is that they do not belong and never will. “I can’t belong because I’m not perfect, so I’ll convince others not to expect anything from me. I am helpless and unable. It’s no use trying because I won’t do it right” (Ballou, 2002, p.157). Adolescents exhibiting this behavior are very discouraged, lacking emotional response or reactivity to most things. Parents typically respond to this behavior with feelings of hopelessness and despair. Adolescents acting through this behavior might sit at their desk with their head down and say nothing all day. Depression is the diagnosis that fits best with this goal. In fact, this goal can be observed in adults with depressive symptoms as well. This behavior exhibits the loss of energy for life due to a perceived inability or
inadequacy that stalls people, stopping their movement and growth. This goal and depressive symptoms hinder people’s outlook to the point of complete hibernation from life. Therapists, parents and teachers struggle to “wake these adolescents up” and reengage them in the world.

Each of these goals of misbehavior can be overwhelming, frustrating and utterly exhausting for not only the caregivers and professionals working with adolescents, but also for the adolescents themselves. Furthering this despair, multiple goals can be co-occurring, especially for adolescents who are struggling with multiple diagnoses.

Summary: Depression, Depression with Other Diagnoses, & Adlerian Goals

A non-traditional, brief therapy such as equine-assisted psychotherapy could effectively treat adolescent depression by removing adolescents from the traditional therapy environment, identifying the goal of their misbehavior efficiently and combining the benefits of a therapeutic relationship with the creative, physically engaging space of an arena. Therapists utilizing EAP can recognize symptoms, observe parent and adolescent behavior and formulate an effective treatment that reduces the level of discouragement for each client.

Horses and Therapy

For over two hundred years, helping professionals have partnered with animals to provide psychotherapy to people experiencing mental illness. “The first documented use of animals as facilitators to mental health treatment was in England in 1792, when the Quakers maintained a ‘home for the insane’ that included small animals such as rabbits and poultry in patients' courtyards. The use of animals was part of treatment that emphasized the natural surroundings of a ‘living environment’” (Trivedi & Perl, 1995, p.223). In various health care and therapeutic settings, clients have experienced lasting relief from mental illness symptoms when animals were incorporated as a regular part of their therapy or care experience. “Studies have shown positive
results in the treatment of psychological and physical symptoms in various populations when pets are used as part of the therapy milieu” (Klontz, Bivens, Leinart & Klontz, 2007, p.258). This research led to the development of animal-assisted therapy, including the involvement of horses in the therapeutic setting.

Since animal-assisted therapy recently garnered credible attention from the therapeutic community in the United States, many people are unaware of how they can partner with horses in the therapeutic process. Horses can be involved in the client experience in several ways including hippotherapy, a type of horseback riding for physical therapy; equine facilitated therapy, a type of mounted work where the client rides the horse to increase self confidence and leadership; and equine-assisted psychotherapy, a therapeutic interaction with horses. This review will focus specifically on equine-assisted psychotherapy (EAP), which is primarily ground work with clients and the horse, and its impact on the symptoms of depression for adolescents, ages 12 to 18.

**Equine-assisted psychotherapy.** Equine-assisted psychotherapy (EAP) is a unique type of therapy that includes a mental health professional, horses, and a horse specialist. Authors Klontz, Bivens, Leinart and Klontz (2007) provide a succinct definition, “Equine-Assisted Psychotherapy (EAP) involves the use of horses in the treatment of psychological issues. Horses serve as catalysts and metaphors to allow clinical issues to surface” (p.258). Unlike the typical riding experience people associate with horses, EAP is unique in that most of the work happens with the horse and client standing eye to eye. “Equine activities such as choosing a horse, horse grooming, mounted work, walking/trotting, lunging, and equine games are combined with traditional experiential therapy tools of role-playing, sculpting, role-reversal, mirroring and Gestalt techniques” (Klontz, Bivens, Leinart & Klontz, 2007, p.258).
EAP seeks to foster a partnership between the client and the horse, allowing for the focus of therapy to shift from the relationship and interaction between the therapist and client to the demonstration of current client issues through the activities with the horse. “A client’s interpretation of a horse’s movements, behaviors, and reactions determines the meaning of the metaphor and, as such, provides a portal for the resolution of unfinished business by bringing forth- and addressing- transference reactions in the here-and-now of therapy” (Klontz, Bivens, Leinart & Klontz, 2007, p.259). This type of interaction works particularly well for adolescents because of the immediate response their horse partners provide. “Horses can also give accurate and unbiased feedback, mirroring both the physical and emotional states of the participant during exercises, providing clients with an opportunity to raise their awareness and to practice congruence between their feelings and behaviors” (Klontz, Bivens, Leinart & Klontz, 2007, p.259). EAP encompasses more than the client and the horse sharing space. It is an approach to the therapeutic process that combines a variety of effective therapy techniques with the power of an equine partner and physical involvement in the process of healing. “EAP has integrated aspects of brief, gestalt, reality, and rational-emotive therapy in an effort to form a type of counseling which works well with a range of clients and a variety of problems” (Shultz, 2005, p.29).

**Addressing goals of misbehavior.** Specific interventions can be used by mental health professionals with adolescents experiencing the symptoms of depression. When adolescents exhibit the first goal of misbehavior, undue attention, their objective may be “keep you busy with me”. One intervention from an Adlerian perspective is to communicate to adolescents that they are important, and engage them in a useful task enabling them to be rewarded for positive life involvement. “Constructive responses to attention-needy teenagers are strategies to help them
find useful ways to gain recognition so that in addition to drawing attention to themselves, they are contributing to the work and play of society” (Ballou, 2002, p. 159). The interventions in EAP that demonstrate this strategy include teaching adolescents how to halter, groom, and feed a horse. They must learn how to approach the horse, understand how to keep themselves safe and eventually maneuver and care for an enormous creature. When they have completed this task, not only do they find enjoyment in the activity, but they earn recognition for their accomplishment while having served a practical purpose as well.

From Sterberg and Premo’s work with the love triangle, this EAP interaction between a horse and adolescents creates commitment (Sternberg, 1986; W. Premo, personal communication, June 27, 2011). Adolescents struggling with the undue attention goal of misbehavior do not feel commitment in their relationships, from themselves or others. The horse interaction seeks to foster the necessary components of commitment—comfort, confidence and competence—allowing them to incorporate these skills in their human relationships. Clients and the horse have to become comfortable with each other, a skill often developed as adolescents learn to care for the horse through haltering, grooming and feeding. Clients begin gaining knowledge and confidence as they learn these new skills, increasing their competence and lowering their attention seeking from others. Finally, the comfort and competence create a sense of confidence and trust between clients and their horse partner. The horse is looking for their human partner to act like a herd leader: keeping them safe, taking care of them and leading them where they need to go. As adolescents develop their comfort and competence, the horse starts to trust their human partner’s confidence, intention and plan. The horse behavior feeds into a positive cycle where clients trust their horses, feel more comfortable, confident and competent, and commitment is established.
For adolescents stuck in the power goal of misbehavior, the EAP intervention seeks to shift their struggle from power over to a feeling of internal locus of control. Instead of seeking power over the situation or other people, adolescents must interact with a powerful creature and find their place within that relationship. EAP addresses this goal by having adolescents lead their horses alone and with other youth within their group. If a horse senses a power struggle, he or she may react by planting his or her feet or choosing to move in the other direction. This horse behavior gives the therapist an opportunity to interact with adolescents, asking why the horse is acting this way. The therapist can point out that the horse does not like to be pulled around the arena but instead needs to be asked and confidently lead.

This interaction also builds adolescents’ confidence and competence as they learn why horses behave the way they do, and how they can choose to act differently within that relationship, producing different results. Increasing these skills adds to the horse/client connection, creating a sense of trust between them. As clients identify their behaviors through their horses’ responses, a bond of intimacy and connection is formed. Adolescents understand their behavior and see that there are alternative ways of being. All of these components equate to clients who have learned how to have commitment and intimacy within a relationship.

Adolescents who participate in the revenge goal of misbehavior can find working with a horse a challenging, yet rewarding experience. “Revenge-oriented adolescents feel hurt by life, and so their behavior is designed to strike back” (Ballou, 2002, p. 160). Horses respond in the moment to behavior. Adolescents cannot hurt a horse’s feelings with their words. If adolescents are seeking revenge by yelling at the horse, dropping the lead rope, or turning away from the horse, the horse will walk away and disengage. If adolescents escalate, becoming physically aggressive with the horse, the horse will bite or kick to express his or her frustration; however, a
horse does not hold a grudge. As soon as adolescents shift their behavior, the horse will re-engage with them, providing a kick one minute and a nuzzle the next. Therapists can illuminate the purpose of the behavior and how the horse communicates, giving adolescents insight into their own behavior.

This EAP intervention helps adolescents understand the passion side of the love triangle (Sterberg, 1986; W. Premo, personal communication, June 27, 2011). Passion develops through three components: creating new experiences, excitement, and energy. Working with a horse, especially in these oppositional moments, provides a new experience for adolescents and can be very exciting. The horse and adolescents expend energy towards each other. In this situation, the energy shifts from working against each other to working together, creating a unique experience for adolescents that help them see their own behavior. After this new interaction, intense excitement and exchange of energy, clients create and feel passion in their relationship with their horse. The therapist can work with adolescents to translate these new skills into healthy, human relationships.

Inadequate-feeling adolescents often present the biggest challenges in therapy because they react the least. “Teens give up when they have tried and failed to gain the attention and power that they feel they need or deserve. When the world does not respond to them as they desire, teens can assume a posture of helplessness and inadequacy” (Ballou, 2002, p. 160). Horses will meet their human partners at the emotional crossroads clients are prepared for. When horses sense that clients need to see their behavior, clients who feel inadequate will find a discouraged horse unwilling to move or participate. Adolescents will feel how frustrating that behavior can be from another creature. Other times, horses will comfort and encourage these
clients. The horse interacts in a way that helps clients regain lost confidence while at the same
time providing comfort and encouragement.

These EAP interventions work on the intimacy side of Sterberg and Premo’s triangle (1986; personal communication, June 27, 2011). Closeness, connectedness and bonding create intimacy. Horses communicate within their herds through touch, nuzzling each other, leaning on one another, or resting their heads together. They naturally choose to touch their human partners as well. Physical touch for discouraged adolescents from their horse partners feels powerful and personal. They are chosen as a point of connection by the horse, another living creature. EAP incorporates touch between a horse and clients by teaching exercises to massage the horse called Tellington T-touch (Rector, 2005). Adolescents learn how to gently massage their horse’s leg, entire torso, and ears, intimating connecting with their horse partner. As adolescents participate in the T-touch activity and find other opportunity to be physically close to their horse partner, an emotional bond is created between them and their horse. Adolescents learn to feel adequate, loved and unconditionally accepted through these interactions.

Through these EAP exercises with horses, struggling, depressed adolescents participating in goals of misbehavior see their behavior through the mirror of their horse partner, develop new skills and learn how to be in relationship with another creature. EAP interventions help discouraged adolescents understand and build intimacy, passion and commitment in their horse partnerships. Clients then can transfer these skills into their human relationships.

**EAP outcomes and scope.** No matter how effective the treatment has been for some, all therapeutic techniques must run the research gauntlet to be considered a viable option for professionals and clients alike. Although research conducted on equine-assisted psychotherapy is relatively new, studies within the last ten years indicate positive, initial outcomes for adolescents
experiencing a variety of behavioral and emotional problems are promising. Two studies measured the effectiveness of EAP on symptoms of depression, low self-esteem and self-control in adolescents during a 14-week equine group (Trotter, Chandler, Goodwin-Bond, & Casey, 2008). The studies showed statistically significant improvement in 81% of participants with a measurable decrease in depressive symptoms, elevated levels of self-esteem and personal control (Trotter, Chandler, Goodwin-Bond, & Casey, 2008). In 2002, a study targeting adolescents and children experiencing depression reported similar improvements for participants in EAP groups (Trotter, Chandler, Goodwin-Bond, & Casey, 2008). All three of these studies used recognized therapeutic tools to measure their outcomes including the Self-Esteem Index, the Harter Self-Perception Profile for Adolescents and the Youth Outcome Questionnaire to measure changes in symptoms and self-perception (Trotter, Chandler, Goodwin-Bond & Casey, 2008).

In 2005, a study was conducted with adolescents, age 12 to 18 years old, from a residential facility, experiencing a variety of mental health concerns including depression, severe aggression, anxiety and an overall lack of social functioning (Shultz, 2005). The adolescents and their parents noticed a range of physical and mental benefits from participating in the group. “Both adolescents and caregivers reported statistically significant change in interpersonal distress, such as anxiety, depression, fearfulness, hopelessness and self harm” (Shultz, 2005).

Another study in 2008 compared EAP to group counseling in a school setting for at-risk adolescents (Trotter, Chandler, Goodwin-Bond, & Casey, 2008). The results of the study indicated that adolescents improved in more areas including increased self-esteem, decreased aggression and depressive symptoms, and increased the majority of participants’ sense of personal accountability when they participated in EAP versus group counseling at school (Trotter, Chandler, Goodwin-Bond, & Casey, 2008).
These five studies represent part of the growing base of research on equine-assisted psychotherapy. They provide initial, positive findings that support the effectiveness of EAP while also raising questions for further research. Professionals are now developing and executing studies that seek to filter out the factors that influence the effectiveness of EAP groups. For example, adolescents may experience improved functioning and a decrease in depressive symptoms simply because they are outside. They may also improve psychologically because the environment does not “feel” like therapy. “At-risk adolescents often utilize community support outside of mental health organizations. Hayden (2005) suggests that diverse therapeutic modalities may exhibit some of the attractions of non-mental health community support agencies, such as carrying less stigma, lack of an office, and being more intrinsically motivating and interesting” (Shultz, 2005). As the research on EAP continues to be refined and expanded, the innate benefits of natural environments, and connecting and communicating with another living creature cannot be ignored.

Thousands of places exist around the world to witness and participate in equine-assisted psychotherapy (EAGALA, 2010; PATH International, 2011). As this type of work increases in popularity, more professional organizations emerge to organize and coordinate efforts within the field including the Equine Assisted Growth and Learning Association, the Professional Association of Therapeutic Horsemanship International and the Delta Society (EAGALA, 2010; PATH Intl., 2011; Delta, 2009). As research continues to support the effectiveness of working with horses, professionals will find more ways to collaborate with one another and prove the reliability and validity of this type of therapy.
Summary: EAP, Interventions for Misbehavior and EAP Outcomes

Equine-assisted psychotherapy is a unique therapeutic technique for the treatment of adolescent depression. It removes the perceived constraints of traditional therapy while incorporating recognized, effective techniques including Gestalt, role-playing, mirroring and skill building. Given the style, content and initial effectiveness reported, EAP may prove to be a strong alternative therapy in the treatment of adolescent depression. An accurate means for identifying adolescents with depression is needed and a better understanding of how adolescents experience this diagnosis is necessary to help them move forward to better mental health.

Adolescents 12 to 18 years old: Depression

The population in focus consists of adolescents struggling with depression. Adolescents in this literature review are considered youth, ages 12 to 18 years of age, although studies of adolescents have included children as young as 10 and young adults as old as 24. Although EAP and other therapies can certainly be used with other populations, adolescents are the focus because of the enormity and complexity of the issues within this age range.

Scope and size of the problem. Compared to depression in adults, the study of this diagnosis in adolescents is in its infancy. In 1960, 2% of youth were diagnosed with depression compared to 25% in 1990, (Johnson, 2010, p. 239). It remains unclear whether these results indicate a lack of diagnosis or lack of existence. Regardless, awareness that adolescents are struggling with these mental health concerns has increased. A worldwide statistic estimates that 14% of adolescents will experience depression, compared to 3% in children under the age of 15, (Hamrin & Magorno, 2010, p.103). Some studies estimate the prevalence of major depression disorder is as large as 58% in adolescents, (Lenz, Coderre, & Watanbe, 2009). Studies in the United States within the last five years indicate as many as one fourth of all youth in this country
will experience depression during adolescence (Johnson, 2010). The enormous range of these statistics demonstrates the incomplete nature of the research about adolescent depression. The number of adolescents struggling with depression is larger than previously reported and the seriousness of this mental health concern for this population a current problem. “Rates of youth depression are the highest of all psychological disorders in this age group; the disorder affects millions of youngsters and their families” (Hammen, 2009, p.200).

In addition to depression, adolescents are being diagnosed with more than one mental health concern more frequently than adults. “Among teenagers, the prevalence of multiple disorders is far more common than that of a single disorder. Comorbidity often involves internalizing [depression] and externalizing [other behavioral disorders] problems, even though these two broad types of problem behaviors have emerged as relatively independent clusters in the literature” (Stahl & Clarizio, 1999, p.47). Not only are adolescents struggling with depression, but with diagnoses and symptoms of Conduct Disorder (CD), Oppositional Defiant Disorder (ODD) and Attention Deficit Hyperactive Disorder (ADHD), which alone and in combination with each other equate to a discouraged adolescent. “For instance, CD tends to occur together with Attention Deficit Hyperactive Disorder (ADHD) about 90% of the instances of children referred for CD treatment and 20-60% in children with Oppositional Defiant Disorder” (Mpofu & Conyers, 2003, p. 37).

Addressing these mental health concerns within this age group is essential due to the current detrimental effects this diagnosis and because left untreated, the outcomes of this condition magnify their negative effects in adulthood. “20 to 40% of adolescents with depression develop bi-polar diagnosis within 5 years of their initial diagnosis” (Harmin & Magorno, 2010, p.106). The estimated average age for the onset of depression in adolescents is 14 years old.
(Crundwell & Killu, 2010, p.46). Another concern is the astounding rate of reoccurrence for adolescents dealing with depression. Even with a statistically significant decrease in symptoms and self-reported relief from depression, 70% relapse within 5 years after their first depressive episode (Harmin & Magorno, 2010, p.103). As discussed in the introduction to this review, a major concern is the rate of suicide within this population. A study from 2009 found that 60% of adolescents struggling with depression will contemplate suicide while 30% of that group will attempt it (Lenz, Coderre, & Watanbe, 2009, p.172).

Suicide and continued depression into adulthood aside, recent studies have shown that adolescents with diagnosable depressive symptoms are at an increased risk of substance abuse, severe academic problems and negative legal system involvement. These studies included adolescents with a diagnosis of depression, Conduct Disorder, Oppositional Defiant Disorder and ADHD (Rapp & Wodarski, 1997). A comorbid diagnosis of any of the disorders listed above increased adolescents’ risk of these problems exponentially. Effective treatment for depression and comorbid diagnoses with similar symptoms as depression is needed in order to prevent this complex downward spiral of problems.

These dire outcomes for depressed adolescents warrant further research about the diagnosis of depression and how to effectively treat it. The inability to determine who will most likely be affected compounds this problem. In adolescents, depression and the above mentioned disorders cross all socioeconomic and ethnic boundaries. Although studies have tried to deconstruct this problem by focusing on gender, culture, and other factors, results are inconclusive. Research has started to form a picture of how depression looks within different adolescent lives, but no one is immune.
Studies show varying results regarding gender. Most recent studies show girls experience depressive symptoms at a diagnosable level two times more than boys (Hamrin & Magorno, 2010). Other reports have shown that this is an inflated number and depression in young men looks drastically different and therefore often misdiagnosed. A study in 1990 measuring gender differences and adolescent depression found that adolescent girls display symptoms recognized as depression such as low self-esteem and lack of energy, whereas adolescent boys display increased hostility, irritability and anti-social behavior (Allgood-Merten, Lewinsohn & Hops, 1990). Although an older study, this research sheds light on how depression appears when seen through the lens of gender and suggests that the symptoms look very different depending on whether the adolescent is male or female.

Limited studies exist regarding culture and ethnicity in relation to adolescent depression. One study analyzed the difference between two enormous ethnic groups: African American and European American youth (Herman, Ostrander, & Tucker, 2007). The study found the rates of depression were equal within these two groups, but their reasons for feeling depressed were different. Reduced family cohesion has been linked to depressive symptoms for African American adolescents whereas increased family conflict was connected to depressive symptoms for European American adolescents (Herman, Ostrander, & Tucker, 2007). Research remains unclear whether these findings are the result of cultural differences or are due to the study focusing on two large groups that encompass many ethnicities. These results add to the understanding of why and how different adolescents become depressed and possibly how to most effectively intervene.

This review presented two factors that influence and shape adolescent depression: gender and culture. This presentation is by no means an exhaustive list or an attempt to cover the
multitude of conditions that foster depression within this population. The data presented represents a brief overview of the available literature. Instead, this review focuses more on the symptoms of depression to allow every adolescent to be considered susceptible, in the hope that more adolescents who need help will receive it.

**Symptoms.** Depression manifests itself differently in adolescents compared to adults, making diagnosis and treatment a different process. According to research by Lenz, Coderre and Watanabe (2009), adolescents experiencing depression may be intensely irritable and angry; could show symptoms as academic problems and poor social skills; or even experience withdrawal, weight changes, or difficulty concentrating. Physicians have documented an increased level of functional somatic symptoms (FSS) in adolescents: complaints such as stomachache, headache, vomiting, and/or dizziness (Hamrin & Magorno, 2010). Whether depression appears as lower grades, social isolation or physical discomforts, adolescent depression is recognized as its own specific mental health diagnosis.

Functional somatic symptoms (FSS) are physical problems that have no physical root cause. Physicians believe FSS may be caused by increased signals and awareness of these signals in the body. Depression causes a change in body signals and can result in increased focus on negative feeling (Janssens, Rosmalen, Ormel, van Orrt, & Oldehinkel, 2010). Depressed adolescents may wake up with a headache every day but their physician cannot find any physical cause and medications to treat the headache offer no lasting relief. This connection between FSS and adolescent depression adds to the picture of what this diagnosis looks like and how it interferes with adolescents’ daily life.
Summary: Adolescent Depression, Scope, & Symptoms

Due to the scope and size of this problem, the US Preventative Services Task Force recommends screening yearly for depression for adolescents ages 12 to 18 years old (Hamrin & Magorno, 2010). As the body of research grows, professionals develop a greater understanding of which adolescents are most likely to experience depression and why. A large percentage of adolescents around the globe experience depression. “Recent studies indicate that 10%-25% of youths in public schools are experiencing moderate to severe symptoms of depression, levels which may merit clinical attention” (Sears & Armstrong, 1998, p.225).

Given the current research, adolescent girls seem to be more at risk and reasons for depression vary by culture. Adolescent depression presents very differently, ranging from lack of energy and melancholy to intense hostility and even physical discomforts. “Although adolescence is no longer considered a universal period of “storm and stress”, it is still a time of increasing challenges as a consequence of biological, social, familial, and academic transitions” (Garber, Martin & Keiley, 2002, p.80). The scope and size of this problem is immense and complex. “Since adolescence is a time of creation of self, poor peer relationships, and a lack of belonging or attachment not only increases chances of depression but persistence into adulthood” (Hammen, 2009, p.201). With this understanding, this review will now move to a comparison of current treatments for adolescent depression, concluding with a comparison to the equine-assisted psychotherapy listed above.

Current Treatments for Adolescent Depression

Not all adolescents experiencing depression receive treatment. In fact, only one third of depressed adolescents receive treatment for their symptoms (Stice, Rohde, Gau & Wade, 2010). The question then becomes: Once an adolescent enters treatment, how does the treatment
become the most effective intervention possible? When comparing existing literature regarding treatment options, the results indicate that treatment works for the majority of adolescents who utilize it. In fact, 80% of adolescents saw improvement regardless of treatment option (Reinecke, Curry & March, 2009). An essential component found in the majority of effective treatments includes helping adolescents develop relationship and social skills (Hammen, 2009). Options for adolescents experiencing depression range from individual therapy sessions to residential stays in mental health facilities. This review will focus on the following treatment options: anti-depressant medication, cognitive-behavioral therapy (CBT), and alternative therapies currently being used and studied in the treatment of depression for adolescents.

**Medication.** The first effective anti-depressants were made available starting in the 1950’s (Pierson, 2009). They reduced depressive symptoms for adult patients but came with a plethora of severe side effects. The next milestone for these medications came with the introduction of selective serotonin reuptake inhibitors (SSRI), which were considered to be the next generation of antidepressants (Pierson, 2009). People taking SSRIs experienced fewer side effects with continued relief from depressive symptoms.

“Pharmaceutical companies and mental health professionals began to recognize in the early 1980’s that children and adolescents who were depressed would benefit from the use of antidepressants as well” (Pierson, 2009, p. 911). Professionals started prescribing SSRIs for children and adolescents at lower doses based on their weight and size. As it had with adults, these medications worked in the reduction of depressive symptoms for some adolescents. By the late 1990’s, over 11 million children and adolescents were taking SSRIs (Johnson, 2010, p. 242). As a result of studies that tentatively indicated an increased suicide risk for adolescents taking SSRIs, in 2005, the Food and Drug Administration issued a black box warning advising parents
and providers of the increased risk of suicide for adolescents taking SSRI antidepressants (Johnson, 2010, p. 243).

Continued research shows that medication can be effective for some adolescents, especially for those experiencing severe, physically debilitating depression. Antidepressants, including SSRIs, relieve symptoms faster in severely depressed adolescents (Reinecke, Curry & March, 2009). For most adolescents, medication is not any more effective than a sugar pill. “Response rates to placebo have been as high as 60% in controlled trials for the treatment of depression in children and adolescents” (Lenz, Coderre, & Watanabe, 2009, p.173). Based on these studies, the recommended treatment or intervention for adolescents struggling with depression is psychological therapy for the individual and families and psychoeducation with the option to prescribe medication in severe cases as part of a holistic treatment plan.

**Cognitive-behavioral therapy.** Cognitive-behavioral therapy (CBT) gives adolescents tools to effectively combat the symptoms of depression. “These programs teach cognitive strategies such as identifying and challenging automatic negative thoughts, as well as social problem-solving skills such as perspective taking, goal settings, and decision making” (Horowitz, Garber, Ciesla, Young & Mufson, 2007, p.694). Participants learn how to manage their stress, focus on their strengths and build their self-esteem.

CBT is often presented in a group setting with an average of five to 12 participants. CBT programs vary in length, although most consist of six to 12 sessions, depending on the number of skills being taught, number of participants and types of individual environment constraints. CBT is considered a brief, solution focused therapy option (Stice, Rohde, Gau, & Wade, 2010). Studies show that CBT is most effective when sessions focus on teaching adolescents one to two skill concepts (Stice, Rohde, Gau & Wade, 2010). Marked initial decrease in depressive
symptoms exists and longitudinal studies show adolescents are able to use these concepts to maintain positive mental health for up to two years (Stice, Rohde, Gau & Wade, 2010).

**One alternative therapy: physical activity.** Physical activity represents one alternative therapy currently being studied. Previous research showed increased physical activity helped adults decrease the symptoms of depression (Rothon, Edwards, Bhui, Viner, Taylor & Stansfeld, 2010, p. 5). Initial reports for adolescents indicate that any kind of physical activity, whether individual or group, rigorous or moderate, helps alleviate symptoms of depression for this population as well (Rothon et al., 2010). Research from the UK indicates that “an increase in physical activity of about 1 hour per week was associated with an 8% decrease in the odds of depressive symptoms in both boys and girls” (Rothon et al., 2010, p. 5). From Harvard Medical School’s model of Healthy Eating Pyramid, exercise is cited as a proven method of improving psychological and physical health. “Nearly every form of exercise offers a host of health enhancing benefits if performed regularly at moderate intensity. It also boosts metabolism and mood” (Johnson, 2010, p.246).

A study at Duke University in 2004 compared the effects of exercise versus an antidepressant medication in treating depression (Johnson, 2010, p. 247). The study found that not only did exercise work as well as medication in relieving depressive symptoms but it worked more effectively at sustaining patients’ improvement. After six months, 8% of patients who participated in the exercise-only group reported return of depressive symptoms compared to the medication group where 38% reported a return of symptoms (Johnson, 2010, p. 247). Additional information from this study showed that physical activity had an inverse relationship to depression symptoms with one hour of activity showing up to an 11% decrease in depressive symptoms (Rothon et al., 2010, p. 5).
Components of Effective Treatments

The American Academy of Child and Adolescent Psychiatry (AACAP) recommends multiple approaches for the treatment of depression in adolescents without ranking any one treatment as more effective than another (Lenz, Coderre, & Watanabe, 2009). AACAP and other professions recognize that different interventions work for different adolescents. There are consistent components found within various approaches that produce effective, long-lasting results.

One essential component includes the team approach where the therapist works with adolescents, partnering with them versus presenting in an authoritative role. CBT has been one of the most studied therapy approaches and incorporates a collaborative relationship between clients and the therapist (Lenz, Coderre, & Watanabe, 2009). This format works for CBT, and other interventions, where clients can participate instead of listening in a lecture or traditional classroom format. “Didactic presentation was minimized because psychoeducational interventions are less effective than interventions that actively engage participants” (Stice, Rohde, Gau, & Wade, 2010, p.10).

A second essential component is offering enough therapy to be effective. Recent research found that 12 weeks of therapy does not significantly reduce symptoms for adolescents (Reinecke, Curry & March, 2009). After 36 weeks, researchers found that many different therapies were highly effective, citing a CBT group combined with medication resulted in 86% of adolescents positively responding (Reinecke, Curry & March, 2009, p. 762).

A third component of effective treatment is the use of group therapy for adolescents with depression. Studies in the past five years pondered whether the type of therapy had significant impact on the clients or if the group format created the majority of clients’ change. Adolescents
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seem to respond equally well, regardless of the therapeutic intervention (Stice, Rohde, Gau & Wade, 2010). “Either interpretation of these findings implies that it may be possible to improve intervention effects by devoting a greater focus to nonspecific group processes, such as building group rapport and expectations for positive intervention effects” (Stice, Rohde, Gau & Wade, 2010, p.18).

A final fourth component includes having a variety of options to choose from so the therapy matches adolescents’ individual needs. “Matching treatments to individual differences has sometimes led to better outcomes” (Horowitz, Garber, Ciesla, Young & Mufson, 2007, p.694). Adolescents respond to treatments that meet their individual symptoms and allow for their unique personalities to be seen as strengths. “Alternatively, it may be preferable to select interventions based on strengths or vulnerabilities of individual patients- to tailor the intervention such that it is truly prescriptive psychotherapy” (Reinecke, Curry & March, 2009, p. 763).

Summary: Current Treatments and Components of Effective Treatments

Many alternative treatment options have been and continue to be developed for adolescents experiencing depression. Professionals creatively combine a variety of therapies to effectively reduce depressive symptoms for each client. The research indicates that treatment can be effective for the majority of adolescents if the most effective components in place. Some research suggests that no treatment to date has a truly lasting effect. One study shows that CBT works to decrease depression symptoms in adolescents when measured within a year, but after one year period, participants tested at the same levels as those who had not received treatment (Stice, Rohde, Gau & Wade, 2010). These results indicate that acknowledgement of effective components from existing treatments is necessary, but perhaps, the most effective intervention has not been developed yet. This review will now summarize the preceding pages, concluding
with a comparison of equine-assisted psychotherapy (EAP) and why it could be one of the most viable options for the treatment of adolescent depression.

**Summary of EAP, Adolescent Depression and Treatments**

Preliminary studies indicate equine-assisted psychotherapy is effective in reducing symptoms of depression for adolescents. Since adolescent depression appears differently than adult depression and adolescents demonstrate contentious relationships with adults, alternative therapies that remove the focus from the therapist and onto therapeutic tool may be more effective. EAP gets the adolescent outside, interacting with a horse immediately. The focus is on the interaction with the horse, not the therapist.

EAP can combine the most effective aspects of other treatments with the unique effectiveness of the horse environment. Adolescents can utilize anti-depressant medication and it will not interfere with their time with the horse. They can also continue to see therapists in other settings, attend groups, and still receive the benefits of EAP. EAP also addresses adolescents’ avoidance of adults and overall resistance to treatment. “For example, McCormick and McCormick (1997) have found that the hostile and defiant street smarts of adolescent gang youth erode quickly in the presence of an assumed adversary (the horse) that the youth is unequipped to control or overthrow” (Frewin & Gardiner, 2005, p.5).

EAP teaches similar skills found in cognitive behavioral therapy and incorporates a group format. “The horse is a large, powerful animal that commands respect and elicits fear. Overcoming these obstacles and building a relationship promotes confidence, relationship skills, and problem-solving skills” (Shultz, Remick-Barlow & Robbins, 2007, p.266). “Horses have several characteristics that are similar to humans in their behavioural responses and social
structures, thus providing a mirror for the client to gain insight in a unique and non-threatening environment” (Shultz, Remick-Barlow & Robbins, 2007, p.266).

EAP involves physical exercise and movement which has been shown to decrease depressive symptoms in adults and adolescents. “The outdoor setting invites an awareness of one’s physical being and stimulates the senses. Special attention to awareness of one’s body is essential for safety, which is used as a demonstration of how it is in the rest of the world” (Shultz, Remick-Barlow & Robbins, 2007, p.267).

EAP does not have to be done in isolation but can be part of a collaborative treatment approach. “As messages from the human become clearer, the horse begins to comply with their intent. Previously difficult tasks and exercises are more easily accomplished and it seems that people soon begin to generalize their new ways of being to their human relationships” (Frewin & Gardiner, 2005, p.6).

In summary, EAP has initial research results that demonstrate similar success rates to existing therapies. It can incorporate the benefits of medication, cognitive-behavioral therapy, and physical exercise. EAP contains at least three of the four essential components of effective interventions for adolescents with depression: collaboration with a therapist, a group setting, and flexible approaches based on individual client personalities and needs. The fourth component of enough therapy to be effective is an option because clients can continue to participate in EAP over a number of weeks. Typical EAP groups run for eight to twelve weeks much like CBT and other current therapy options. EAP has thus far presented as a creative, unique treatment option that incorporates aspects of existing therapy techniques with the flexibility to meet adolescent needs.

Horses are not judgmental; they don’t have expectations or prejudices.
They don’t care what you look like; are not influenced by your station in life; are blissfully unaware of whether you have friends or not. The horse responds to the immediacy of your intent and your behavior, and does so without assumption or criticism. Engagement on such a level can be extraordinarily powerful for many people. (Frewin & Gardiner, 2005, p.5).
Chapter 3: Methodology

Overview

The researcher attempted to survey 20 mental health therapists who have utilized EAP in the past regarding previous groups they have facilitated using horses to treat adolescents. The purpose of the survey was to ask them to qualitatively and quantitatively evaluate and describe the effectiveness of EAP on reducing the symptoms of depression by not only reporting on adolescent behavior, but the horse behavior and response as well.

Description of Methodology

Using the online survey tool, Survey Monkey, this researcher created a 24-question survey that mental health professionals accessed and answered online. The professionals were contacted electronically and asked to complete the survey anonymously. They were provided with an attachment containing a complete informed consent which they were asked to sign electronically or on a printed copy and return to the researcher via email or fax. This informed consent will be kept on file with the Adler Graduate School as part of the research process.

Design of the Study

After reviewing a large portion of the literature on equine-assisted psychotherapy, the researcher chose to survey mental health professionals in an attempt to add to the body of research on EAP and more clearly define how and why horses work well as therapy partners with adolescents. To better identify current EAP practitioners, the researcher collected demographic information including professional licensure and years in practice. The professionals were then asked to rate the clients’ levels of depressive symptoms before and after participation in equine-assisted psychotherapy group with a specific focus on adolescents with a diagnosis of depression. This data provided a gauge of symptoms specifically related to depression.
The next goal of the survey was to identify specific behaviors from the adolescents that demonstrated mistaken goals of behavior within the group setting, adding to the research on adolescent behavior from an Adlerian perspective. The essential component attached to this observation was a question asking about the horse response to this behavior. The researcher’s objective was to explore the hypothesis that horses can identify an adolescent’s mistaken goal responding with a specific behavior in the moment. The survey asked for the opinions of the mental health professionals regarding the effectiveness of these groups and equine-assisted psychotherapy overall.

**Population and Sample**

The population consisted of 20 mental health professionals. One third of these professionals knew the researcher from working together with horses or attending professional development opportunities. The remaining professionals were unknown to the researcher and had received the survey through a listserv for equine professionals or were referred contacts.

**Instrumentation**

The instrumentation entailed a 24-question survey created online at SurveyMonkey.com and distributed electronically via email to the mental health professionals.

**Method of Data Analysis**

The method of analysis included statistical exploration of the data provided by the mental health professionals including the mean, mode and frequency distribution of their answers. The qualitative responses were analyzed for common or similar answers and are in Chapter 4 as part of the summary of the research.

**Data Collection**

Raw data was collected using each of the 24 questions in the online survey.
Data Analysis

The data analysis included a summary of demographic information regarding the licensure and time in practice for mental health professionals, and professional outlook and summary of outcomes from previous EAP groups. This process also looked for specific patterns in each question from the participants. The data analysis sought to confirm or disprove the two hypotheses stated in Chapter 1:

Hypothesis 1: EAP does reduce depressive symptoms in adolescents age 12 to 18 following an 8 to 10 week therapy group using EAP with 8 to 10 peers total by 50%

Hypothesis 2: through observing horse behavior, the therapist can identify the goal of misbehavior for an adolescent with a diagnosis of depression.
Chapter 4: Presentation and Analysis of Data

Introduction

The following summary presents the raw data obtained for the results of a 24-question online survey given to mental health professionals utilizing equine-assisted psychotherapy. The survey was sent to 12 people directly and the researcher requested it to be forwarded on to colleagues and an equine-assisted psychotherapy listserv. The survey was available for 12 days prior to the collection of responses. The researcher obtained eight responses. This report will reflect the information provided by these eight professionals that represent a small sample of mental health practitioners working in this particular field.

The survey included demographic questions about the mental health professional and the clients who participated in past EAP groups. Additionally, survey participants were asked to provide details about activities used during group, to rank certain attributes of clients before and after group, and recall specific client/horse interactions. The survey is a mixture of quantitative and qualitative questions and seeks to further support or negate the hypotheses stated in Chapter 1 and Chapter 3 regarding reduction of depressive symptoms and the ability of the therapist to identify the mistaken goal of behavior utilizing this technique.

Research Question Analysis

Below is the data and data analysis from each survey question:

Question 1: One-hundred percent of the 8 participants surveyed stated they had read the informed consent and agreed to take this survey voluntarily.

Question 2: Seven out of eight participants answered this question. The remaining participant does not have a mental health licensure. The highest percentage reported was 42.9%, psychologists, while the remaining participants were equally divided between
drug and alcohol counselors, social workers, professional clinical counselors and professional counselors. None of the participants identified with the category of marriage and family therapist or psychiatrist (see Figure 1).

Question 3: Over fifty percent of the participants have been working the mental health field for over 10 years. One participant did not respond to this question so the data included only 7 participants (see Figure 2).

Question 4: The data for length of time working with EAP mirrored the participants’ length of time in the mental health field (also included in Figure 2). These results indicate for this particular sample, the professionals practicing EAP are most likely to have a license in psychology and have been working not only in the mental health field but also with horses for over 10 years.
Question 5: This question focused on the demographics of the group including size, number of sessions, number of female and male clients and number of horses worked with during a group session. The most common size of a group was 4 to 6 clients, followed by smaller group sizes of 1 to 3 (see Figure 3). The average number of sessions ranged from 4 to 9, with both categories holding 33% of the data individually (see Figure 4). The participants consistently reported having more female clients than male clients, unless they had an all male group. Finally, the participants indicated they worked with 1 to 3 or 4 to 6 horses (see Figure 5). These results indicate for this particular sample, EAP groups consisted of 4 to 6 clients, contained anywhere from 4 to 9 sessions and had more female participants unless the group contained only males.
Question 6: Every participant reported having an adolescent age 15, 16, and 17 in their EAP groups. Eighty-five percent of participants reported having adolescents, ages 13, 14,
and 18 in their EAP groups as well (see Figure 6). For this particular sample, these results indicate their EAP groups always contained adolescents ranging from 15 to 17 years of age, and over 85% of the time, included adolescents ages 13, 14 and 18.

Question 7: The results indicate that the majority of clients had differing dual diagnoses than the options provided (see Figure 7).
Question 8: One-hundred percent of participants included horse behavior signals education, individual leading and haltering as activities they utilize with EAP groups. Over 75% of the participants listed care of the horse, calming techniques to use with the horse, grooming and horse safety as activities they also use (see Figure 8). Other activities that participants named included art, writing, reading, vaulting, drill team, bilateral brain activities, long rein-line driving, herd observation and sensory exercises.

Question 9 and 10: The first behavior analyzed was the clients’ confidence in group (see Table 1 for all responses to questions 9 and 10). The average score for before group was 2.4 and the average after group score was 5.25, indicating a 54.3% increase in clients’ confidence in group. The second behavior analyzed was the clients’ confidence with horses. The average score for before group was 2 and the average after group score was 5.4, indicating a 63% increase in clients’ confidence with horses. The third behavior analyzed was the clients’ social relationships. The average score for before group was 2 and the average after group score was 4.5, indicating a 55.6% increase in clients’ social relationships.
The fourth behavior analyzed was the clients’ ability to work as a team. The average score for before group was 2.25 and the average after group score was 5, indicating a 55% increase in clients’ ability to work as a team. The fifth behavior analyzed was the clients’ ability to resolve a problem. The average score for before group was 2.2 and the average after group score was 4.6, indicating a 56% increase in clients’ ability to solve a problem. The sixth behavior analyzed was the clients’ ability to share their experiences with others. The average score for before group was 2.6 and the average after group score was 5, indicating a 48% increase in clients’ ability to share their experiences with others. The seventh behavior analyzed was the clients’ willingness to participate. The average score for before group was 4 and the average after group score was 6.5, indicating a 20% increase in clients’ willingness to participate. The eighth behavior analyzed was the clients’ ability to focus on the present moment. The average score for before group was 3.75 and the average after group score was 5.25, indicating a 28.6% increase in clients’ ability to focus on the present moment.

The ninth behavior analyzed was the clients’ ability to manage their fear and anxiety. The average score before group was 4 and the average after group score was 4.5, indicating an 11% increase in the clients’ ability to manage their fear anxiety. The tenth behavior analyzed was the clients’ ability to manage their irritability. The average before group score was 4.25 and the average after group score was 5.25, indicating a 19.1% increase in the clients’ ability to manage their irritability. The eleventh and final behavior analyzed was the clients’ levels of hope. The average before group score was 3 and the average after group score was 4.75, indicating an increase in the clients’ levels of hope by 36.8%.
Table 1

Clients’ Behavior Levels (as rated by survey participant)

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Questions 11 and 12: Seven out of 8 participants responded. Fifty-seven percent identified specific actions by the clients matching the specific goal of attention. Some of the responses included clients climbing on top of the barn, leaving group repeatedly, and rude gestures towards the horse. Horses’ responses consisted of leaving with the client, remaining calm, and mirroring clients’ behaviors.

Questions 13 and 14: Seven out of 8 participants responded. Participants identified a variety of specific actions by clients matching the specific goal of power: clients pulled and yanked on the horses lead rope, tried to bully other participants and/or horses, or feigned confidence. The horses’ responded with a calm demeanor or acting spooked.

Questions 15 and 16: Seven out of 8 participants responded. Participants identified a variety of specific actions by clients matching the specific goal of revenge: clients would criticize some of the horses’ behaviors or exhibit rude behavior towards their peers. The horses’ responses included ignoring the behavior or continuing with their daily routine.

Questions 17 and 18: Seven out of 8 participants responded. Participants identified a variety of specific actions by clients matching the specific goal of inadequacy: clients demonstrated fears due to the size of the horse, withdrawal from group activities, self depreciating comments and feelings of inadequacy or inability to complete a task. The horses’ responded by getting very still and waiting or remained “shut down” from client.

One participant stated, “The horse moved across the pasture where the adolescent had moved, and put their nose on the adolescent’s head and just breathed softly."

Question 19: A pattern in the responses was verbal reports from teachers, parents and fellow EAP staff indicating an observed decrease in depressive symptoms. Another
pattern was noticing a shift in body language including increased eye contact, engaging with the horses, and overall positive attitudes of clients.

Question 20: A pattern in the responses was a desire to have EAP be a more accessible option, have more sessions and further research of this technique.

Question 21: Twenty-nine percent of participants stated 90 to 100% of their clients were receiving some other type of service while they were participating in EAP groups. The same percentage indicated they did not know. No other trends were visible.

Question 22: Fifty percent indicated a school-based intervention or treatment was being used while clients were in EAP groups. The remaining 50% of participants did not know or were not informed of other treatments being provided at the same time.

Question 23: Forty-three percent indicated other treatments had been effective to a point, but not completely. The same percentage indicated the treatments had not seemed to reach the adolescent clients.

Question 24: Other comments included how important it is to have a mental health worker participating in the EAP team who has thoroughly built his or her therapeutic skills in another setting. This level of experience is important since horses are an additional component to the therapy process and they need competent human leaders. Participants suggested further revision of the survey to obtain the most accurate data possible.

Summary of Results

The survey results add to the picture of who is practicing EAP, what type of client is being served and how this technique affects depression in adolescents. From this small sample, a psychology license was the most common licensure held by members of this group, followed by
a range of different mental health specialties. A mental health licensure is not required in order to work with horses and therefore some of the participants were unable to respond to this question. This sample was composed of tenured mental health professionals who have been working in the field and with horses for over 10 years. According to the sample, EAP groups generally consisted of four to six clients, taking place over four to nine sessions and working with one to six horses. Adolescent clients typically range in age from 15 to 17 years of age and often include 13, 14 and 18 year old clients as well. The survey results indicate the majority of clients using EAP have dual diagnoses not listed as part of the research. It is unclear if this combination includes depression or not.

The participants indicated they use a wide variety of horse and client activities. They always teach horse behavior signals, leading, and haltering. Finally, the clients’ abilities to manage their fear, anxiety, and irritability increased after completing their EAP groups. Their level of hope also increased according to the participants’ observations. Clients demonstrated specific behaviors that fit into the four goals of misbehavior: attention, power, revenge and inadequacy. The horses responded to the clients by ignoring the behavior, mirroring the action or engaging the client in a herd behavior such as physical touch and lowered breath levels.
Chapter 5: Summary, Conclusions, and Recommendations

Summary

Depression in adolescents is a complicated diagnosis that cannot be directly linked to one cause, is demonstrated through a range of different symptoms and significantly affects a large percentage of adolescents in the United States. Adolescents present as depressed as a result of a myriad of other dual diagnoses. The number of adolescents being diagnosed with depression is increasing and the resulting behaviors from this diagnosis can have dire outcomes for those it affects including academic failure, drug and alcohol use, negative involvement with the legal system and even suicide. Many interventions or techniques exist for the treatment of adolescent depression including medication, Cognitive-Behavioral therapy (CBT) and alternative therapies such as physical exercise programs. These therapies exist as effective options but mental health professionals continue to search for more efficient interventions that will engage this often challenging population.

Horses are powerful animals to work with in many settings including psychotherapy. Equine-assisted psychotherapy (EAP) is relatively new in the United States but garners more attention from professionals and clients as it continues to be effective for a variety of clients. Horses provide a mirror for clients to see their behaviors and seem to facilitate an environment of change, especially for adolescents. EAP works in conjunction with other interventions while simultaneously combining the most effective parts of existing therapies such as the skill building, group settings and the physical exercise and outdoor setting components.

From the data presented in this study, the researcher’s view is that EAP addresses the adolescent’s goal(s) of misbehavior. The Adlerian goals of misbehavior exist as one framework for understanding and treating adolescent depression. Mental health professionals are able to
identify adolescents’ goal of misbehavior - undue attention, power, revenge or inadequacy, as clients struggle to belong. Adolescents experiencing depression may exhibit any one of these behaviors. Adlerian goals of misbehavior allow the mental health professional to shift the focus off the diagnosis and onto identifying what the adolescent is struggling with and how best to intervene. Adolescents will demonstrate their goal of misbehavior during a session with a horse. The horse will respond naturally to the adolescents, clearly identifying the goal of the behavior for the mental health professional while at the same time, directly addressing the behavior with the adolescents.

The survey research conducted for this report did not directly prove EAP’s impact on adolescent depression, but did confirm some of the reasons why it is effective. The sample was small and therefore not representative of the larger EAP community including mental health professionals and clients. The results from this research cannot be generalized to the adolescent depressed population due to not only the sample size but the lack of clarity within the survey questions regarding depressive symptoms or behaviors before and after EAP groups. The input from the participants provides insight into horse and client behavior and a platform for further research.

The research results indicate adolescent clients experienced an increase in their ability to manage their fears and anxieties by 11.1%, and irritability by 19.1%, while increasing their level of hope by 36.8%. There was an increase in positive behaviors and skills ranging from 11 to nearly 37%. Since these results did not meet the 50% threshold, hypothesis one cannot be confirmed. These increases were not self-reported by clients or observed during the groups. The survey participants were asked to remember their previous clients and their behaviors.
Hypothesis two sought to confirm through observing horse behavior, the therapist can identify the goal(s) of misbehavior for an adolescent with a diagnosis of depression. The research results showed that horses responded to adolescent behaviors in a way that mirrored the clients’ behaviors or matched the alternate approaches suggested in the Adlerian goals structure (Ballou, 2002). For example, when adolescents demonstrate the goal of undue attention, an alternative response suggested for parents and therapists is to give positive attention and ignore excessive behaviors. Questions 12 and 13 indicated horse partners would respond to undue attention by leaving clients (ignoring), remaining calm, or copying client behavior. Therapists could look at the horse and see a larger demonstration of clients’ behavior and/or the most useful response to the behavior. In questions 14 through 18, this pattern continued through the remaining three goals of misbehavior, with the horses responding with larger demonstrations of clients’ behavior or using one of the suggested alternative responses. Due to the small sample, the results cannot be generalized to the larger population. EAP interactions suggest that hypothesis two is valid and horses can help therapists identify their clients’ goals of misbehavior.

The remaining data collected has additional value and indications for the effectiveness of EAP when working with adolescents. The results indicate adolescents improved the following skills by over 50%: confidence in group and with horses, social relationships, ability to work as a team and resolve a problem. As discussed in earlier chapters, these skills build essential components of healthy relationships as demonstrated through Sternberg and Premo’s love triangle research (Sternberg, 1986; W. Premo, personal communication, June 27, 2011). These outcomes support further research and highlight EAP’s effectiveness when working with adolescents.
Conclusions

Adolescent depression is a confusing, complex diagnosis with significant, negative affects for those who experience its symptoms. The structure of EAP groups incorporates the most effective components of existing treatment options and works in cooperation with other simultaneous interventions. Further research is needed to conclusively prove EAP is effective for reducing the symptoms of adolescent depression. A conclusion from this research is EAP is an effective way to identify the goal of adolescent behaviors, shown through questions 12 through 18. EAP helps clients reach their goals in healthier avenues. Through EAP, adolescents struggling with depression and other mental health diagnoses build the skills of commitment – comfort, competence, and confidence, the skills of passion – creating new experiences, excitement and energy, and the skills of intimacy – closeness, connectedness, and bonding. Previous research found in the literature review and the data from this research, found in questions 9 through 23, highlight the increased level of enjoyment and engagement adolescents experience during EAP sessions. Clients seem to relish their time with their horses and through the process, improve their relationship skills as they spend time with their horse partners.

Recommendations for Further Study

Further research is needed to clearly define how EAP is effective and with which diagnoses or symptoms it can be successful. Future research should include client self-report before and after group as well as input from parents, teachers and therapists throughout the therapy process to provide more accurate data about EAP. A study incorporating a larger sample of mental health professionals and containing more defined questions would increase the validity and accuracy of the research as well. Another area for study includes exploring the themes found in various horse-partnered therapies.
References


Shultz, P. N., Remick-Barlow, G. A., & Robbins, L. (2007). Equine-assisted psychotherapy: A mental health promotion/intervention modality for children who have experienced intra-


Appendix A: Survey Instrument

24-Question Equine-Assisted Psychotherapy Survey

1. DISCLAIMER

You are invited to participate in a research study conducted by Jennifer Gustavson-Dufour, a graduate student at Adler Graduate School in the Master of Arts in Marriage and Family Therapy. The results will contribute to my Master’s Project and may or may not be published.

By clicking on “I AGREE” below, you are agreeing to anonymously participate in this survey. Your name will not be stored with the data. Reports of this study will not include individual data in a form by which you could be identified.

You will not receive any compensation for your participation in this Survey.

There are no risks or discomforts anticipated for persons who volunteer to take part in this Survey.

Your participation is voluntary. If you decide to participate, you may refuse to answer individual questions and you are free to withdraw your consent and discontinue participation at any time without penalty by simply leaving the website where the Survey is hosted.

You hereby release Jennifer Gustavson-Dufour from any and all liability directly or indirectly resulting from the compiling and processing of such information, and the use thereof. You agree that all of said compiled information shall constitute Jennifer Gustavson-Dufour’s sole property, with full right of disposition in any manner whatsoever and are protected by copyright, service mark, and other applicable intellectual property, trade secret and proprietary rights laws.

You hereby waive any right to inspect or approve the finished product or other copy that may be used in connection therewith or the use to which it may be applied. You agree that you will not duplicate, download, copy, publish, publicly display, modify, create new works from, otherwise distribute or in any way exploit, any of the content or information included in this Survey and/or received from Jennifer Gustavson-Dufour for any purpose other than as expressly permitted by this Survey.

1. Do you agree to participate in this anonymous survey?

Yes, I have read the above disclaimer and agree to participate.

No, I have read the above disclaimer and I do not wish to participate.
2. What is the license you have to practice mental health?

Licensed Marriage and Family Therapist
Psychologist
Professional Counselor
Professional Clinical Counselor
Psychiatrist
Social Worker
Drug and Alcohol Counselor
Other

3. How long have you been practicing in the mental health field?

0 to 6 months
6 months to 1 year
1 to 3 years
3 to 5 years
5 to 10 years
10 years +

4. How long have you been facilitating equine-assisted psychotherapy?

0 to 6 months
6 months to 1 year
1 to 3 years
3 to 5 years
5 to 10 years
10 years +

5. Think of a specific equine-assisted psychotherapy group for adolescents with a mental health diagnosis that you have facilitated, preferable in the last 6 months. Please answer the questions below. (add comments and check factors that apply):
6. Please check all the ages of adolescents you've had in an EAP group. (This can be a combination of different groups at different times.)

Younger than 12

12
13
14
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17
18

Older than 18

7. Within your group, please list the number of clients in each category that apply. Please place each client in only 1 group that fits best.

Depression ONLY

Conduct Disorder (CD) ONLY

Oppositional Defiant Disorder (ODD) ONLY

Attention-Deficit Hyperactivity Disorder (ADHD) ONLY

Depression & CD

Depression & ODD

Depression & ADHD
CD & ODD
CD & ADHD
ODD & ADHD
Other combinations

8. Activities utilized in group. Check all that apply.

Horse safety
Grooming
Calming techniques to use with horses
Haltering
Leading Individual
Team Leading
Horse behaviors signals education
Obstacle course or building an obstacle course
Care of the horse: feeding, watering, stall clean out, etc.
Riding
Other

9. Please rate the levels of these behaviors/skills for the clients diagnosed with depression

<table>
<thead>
<tr>
<th></th>
<th>1 Worst</th>
<th>2 Little</th>
<th>3 Fair</th>
<th>4 50% there, 50% not there</th>
<th>5 Good</th>
<th>6 Great</th>
<th>7 Best</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence in Group</td>
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<td></td>
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<tr>
<td>Confidence with horses</td>
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<tr>
<td>Social relationships</td>
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<tr>
<td>Ability to work as a</td>
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</tbody>
</table>
### Team

<table>
<thead>
<tr>
<th>Ability to resolve a problem</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Ability to share their experiences with others</td>
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<td>Willingness to participate</td>
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<td>Ability to focus on the present moment</td>
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<td>Level of fear and anxiety</td>
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<tr>
<td>Level of irritability</td>
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<tr>
<td>Level of hope</td>
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</tbody>
</table>

10. Please rate the levels of these behaviors/skills for the clients diagnosed with depression AFTER the group had completed all the sessions:

<table>
<thead>
<tr>
<th>Confidence in Group</th>
<th>1 Worst</th>
<th>2 Little</th>
<th>3 Fair</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Confidence with horses</td>
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<tr>
<td>Ability to work as a team</td>
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<tr>
<td>Ability to resolve a problem</td>
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<tr>
<td>Ability to share their experiences</td>
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</tbody>
</table>
11. Did you see at least one adolescent in group try to attract/get attention in an extreme way? If yes, please describe what they did.

12. From the question above, what was the horses response to this behavior?

13. Did you see at least one adolescent in group demonstrate the need for power? If yes, please describe their behavior.

14. From the question above, how did the horses respond to this behavior?

15. Did you see at least one adolescent in group make seemingly hurtful, insulting or demeaning comments to other participates, staff or horses? If yes, please describe their behavior.

16. From the question above, how did the horses respond to this behavior?

17. Did you see at least one adolescent in group demonstrate discouragement, give up, or insist they "can't do it"? If yes, please describe their behavior.
18. From the question above, how did the horses respond to this behavior?

19. When using EAP with adolescents experiencing depression, do you see a decrease in the client's symptoms of depression? (Please describe how pre and post symptomology was measured.)

20. In your professional opinion, what could make equine-assisted psychotherapy more effective for this population?

21. How many group participants were receiving other therapeutic interventions or treatments in addition to EAP?

22. What other therapeutic interventions or treatments were being used to assist each client outside of EAP?

   Individual therapy
   Family therapy
   Medication (for mental health)
   Other animal-assisted therapy
   Cognitive Behavioral Therapy (CBT)
   Dialectical Behavioral Therapy (DBT)
   In-patient living situation
   Day treatment enrollment
   Other

23. Had other interventions/treatments been unsuccessful for these adolescents? If yes, why were they unsuccessful?
24. Please share any other comments here.

Thank you for participating in this survey. The results of this survey will be incorporated into my final Master's Paper. If you are interested in receiving a copy of the final paper, please email me @ gustavsondufour@yahoo.com. Thanks again for your time!
- Jenny Gustavson-Dufour