Equine Facilitated Mental Health Services and Social Adjustment in Adolescents on Probation

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Carroll College
This thesis for honors recognition has been approved for the Department of Psychology.

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Abstract

Little quantitative research has been done to verify claims that the use of horses in Equine Facilitated Mental Health and Education Services has an impact on the clients’ emotional and mental wellbeing. This study was created to determine if participation in six months of weekly involvement in an equine facilitated mental health program would lead to lower scores in an adjustment inventory, indicating greater social adjustment. The differences between pre-treatment and post-treatment scores on an adjustment inventory were measured as a function of participation in six months of weekly equine facilitated mental health sessions. Four participants were involved in the study. Two served as a control group and participated in traditional probation therapies and two served as the experimental group and were additionally enrolled in an equine facilitated mental health program. Based on test scores in an inventory of adolescent adjustment, the participants in the equine services show a decline in general adjustment as well as on subscales of Antisocial Behavior, Anger Control, Emotional Distress, and Positive Self. Discussion focuses on the implications of these data on the field of Equine Facilitated Mental Health Services, possible explanations for “acting out” behavior in adolescents and considerations for future studies.
Introduction

Before recorded history human and horse have shared an intertwined pathway. Changes in the skeleton of the prehistoric horse evidence that horses were ridden and used as transportation as early as 3000 to 3500 B.C. (Olsen, 2003). The domestication of this majestic animal shaped history as its influence molded the world’s transportation, inspired culture, revolutionized warfare and facilitated long-distance trade.

Using the horse, humans could travel farther, travel faster, and carry more. The horse became fearful weapon as well as transportation; a well-trained mount could inflict as much damage as its warrior rider. With the fall of the Roman Empire, the horse returned from its place in the cavalry to a position before a plow; working farmland and guiding cattle. Horses again became symbols of wealth and power as the Renaissance swept through Europe and a New World was colonized. The role of the horse changed little until the 1960’s when the horse began to be employed in physical therapy treatment, now known as hippotherapy. In more recent history, horses are being utilized in a field of psychology called Equine Facilitated Mental Health and Education Services (EFMH/ES).

Equine Facilitated Mental Health and Education Services

EFMH/ES is a burgeoning field of psychological therapy using horses to stimulate emotional and mental processes. These services are used by people with emotional or mental health issues, as well as individuals without these afflictions, to encourage mental, emotional, or spiritual growth. Equine Facilitated Mental Health Association (EFMHA) is a guiding organization for equine facilitated mental health
practices. According to EFMHA, equine facilitated mental health and education services strive to teach human clients to “instill a sense of order, to create an understanding of boundaries, to improve focus, and to instill trust” (Equine-Facilitated Mental Health Association, 2003).

An Equine Facilitated Mental Health and Education Service combines typical therapeutic tasks with equine activities. Clients of these services participate in activities such as selecting a horse “partner,” observing the interactions of the horse with the herd, grooming or cleaning the horse, leading the horse through obstacle courses, and riding the horse. Emotions and conflicts that arise during the activities are discussed and processed with the facilitating therapist and/or used as learning experiences.

In this type of service the horse serves as either a catalyst for change or a metaphor for an aspect of the participant’s life. For example, the unruly horse may begin to symbolize a mother’s relationship with her unruly child. Through these equine activities the mother can confront her unconscious emotions toward her child’s behavior and practice with the horse new ways of handling the behavior at home.

Equine Facilitated Mental Health and Education is also used to further education for “well” people. At Stanford University Medical School, equine facilitated education is used to teach medical students how to communicate with their patients and improve their non-verbal communication skills. According to Dr. Beverly Kane, instructor of the Medicine and Horses class,

One of the things we ask the horses to do is an analogy for informed consent for a surgical operation. [...] The way the horse signs the form is to walk across a tarp on the ground if consenting to the surgery and to resist if the surgery is a no-go.
The idea is that the horse is going to let you know whether he likes the way that you touch him or he doesn’t, and you need to keep focused on the parts of the body that the horse uses to signal his displeasure (Whiting, 2007, p. 4).

Animal Assisted Therapy

As early as ancient Greece and Rome, dogs were kept in temples and close to the owner to promote healing and ensure mental stability (Rennie, 1997). By the 1700s, York Retreat began using animals for companions for psychiatric patients. The retreat is still in existence and continues to use animals in treatment.

In the 1960’s Boris Levinson, a psychiatrist in New York, began bringing his pet dog, Jingles, into therapeutic sessions. He noted that children were more likely to respond in a positive manner when the dog was present than if only Levinson was in the room. In his observations and research, Levinson proposed that the dog acted as a catalyst; for the children Jingles was a safe subject for discussion through which their unconscious fears and anxieties were allowed to play out (Wells, 2007). Levinson’s work spurred research into realm of human-canine interactions and their role in human health.

Research has noted that a relationship with a dog promotes physical and psychological wellbeing. In Well’s review of research in the relationship between canines and humans, she notes that dogs have been shown to be predictors and preventers of ill health, facilitators of recovery from poor health, and therapists (2007). For example, stroking or talking to a dog has been shown to reduce blood pressure and heart rate. In several experiments, the mere presence of a dog in the room reduced participants’ reactions to stress (Beck, 1983).
Due to these research findings animals have increasingly been utilized in a therapeutic capacity, guided by organizations such as the Delta Society, the Society for Companion Animal Studies (SCAS) in the United Kingdom, and the International Association of Human-Animal Interaction Organization, which advises the United Nations (UN) and the World Health Organization (WHO). Animals in this position, including dogs, cats, and birds, work in nursing homes, prisons, psychiatric facilities, hospitals, and private homes providing owners with a relationship which has been proven physically and psychologically valuable. Despite the wellspring of research into the psychosocial effects of canines on humans, the use of horses in a mental or psychological therapeutic setting did not arise out of this newly established field of animal assisted therapy. Instead, EFMH/ES has its roots in physical therapy.

**Hippotherapy**

Humans have long recognized the ability of the horse to provide physical therapeutic support. Both hippotherapy and therapeutic riding are based on the belief that the natural movement of the horse's gait provided a mechanism for healing the physical disabilities. In the 18th century, doctors in Europe began to recommend horseback riding as a method of improving flexibility, stability, muscle control, and posture. The world began to take notice of the healing power of hippotherapy when Liz Hartel, a young woman paralyzed with polio, won the silver medal for dressage in the 1952 Helsinki Olympic Games. Hartel acknowledged that, with the help of a physical therapist, she began intense horseback riding lessons to improve her muscle strength and coordination (Strides, 2007).
Hartel’s international success introduced hippotherapy and therapeutic riding to the United States in the 1960’s. Hundreds of hippotherapy and therapeutic riding centers cropped up throughout the U.S., bringing about the formation of the North American Riding for the Handicapped Association (NARHA). NARHA provided ethical guidelines, certification, guidelines for care of working horses, and education for those interested in providing and receiving hippotherapy or therapeutic riding services. They also outlined and prescribed stringent operating and safety standards to be met at all NARHA facilities.

NARHA also encouraged its members to look into other ways in which the relationship with a horse was beneficial for humans. The organization endeavored to support all equine activities that include “all the various offerings of NARHA centers and all the equine activities and therapies designed for people with disabilities and diverse needs” (North American Riding for the Handicapped Association, 2008). This methodology of branching into all aspects of the horse-human relationship led NARHA to begin to foster the small sample of clients who “may have needed less of the physical benefits derived from interaction with horses, and more of the psychosocial benefits” (Hallberg, 2007, p. 43-44).

**Principle Founders**

A grassroots movement in hippotherapy and therapeutic riding led to the formations of two guiding organizations: Equine Facilitated Mental Health Association (EFMHA), and Equine Assisted Growth and Learning Association (EAGALA).

A pioneer in the field of EFMH/ES is Barbara Rector, a therapeutic riding instructor from Tucson, Arizona and founder of Therapeutic Riding of Tucson (TROT).
She, like many others in the therapeutic riding field, had noticed a profound psychosocial impact of work with horses. She believed that this impact needed to be formally addressed and that the benefit of working with horses created a unique clientele group. In the early 1990s, Barbara Rector began to work with Sierra Tucson, an addictions treatment center in Tucson, and created the first equine facilitated psychotherapy program.

As an effective member of the NARHA Board of Directors, Barbara Rector led the way in creating a section of the organization dedicated to equine facilitated mental health. This new section, called Equine Facilitated Mental Health Association (EFMHA), was formed in February 1996. EFMHA focused on creating guidelines, standards, and ethical considerations for the field of equine facilitated mental health. By 2006, EFMHA had enacted psychosocial safety protocols at all NAHRA equine facilities and created a set of practice standards that are in effect at all NAHRA centers that offer mental health services.

At the same time as Barbara Rector was assisting in the foundation of EFMHA, Greg Kersten working with at-risk youth, developing an equine program. Kersten worked at Aspen Ranch, a residential treatment program in Loa, Utah and introduced the notion of equine facilitated mental health in residential facilities throughout the country.

In 1999, Greg Kersten and therapeutic partner Lynn Thomas formed the Equine Assisted Growth and Learning Association (EAGALA). This organization was dedicated to providing training and support to those interested in offering equine assisted psychotherapy. Within two years, EAGALA created training manuals, certification programs, a resource manual, a yearly conference, and an information network for
interested individuals. As of 2007, EAGALA had 3,494 members in the organization (Equine Assisted Growth and Learning Association, 2007).

While other small groups have arisen to provide their own methods, treatment, training, and standard, these two organizations, EFMHA and EAGALA, have a large impact on training, ethics, and methodology used in the field of EFMH/ES.

**Specialties**

According to Leif Hallberg’s *Walking the Way of the Horse* (2008), the field of EFMH/ES is divided into two specialties that frequently overlap, Equine Facilitated Mental Health and Equine Facilitated Education.

**Equine Facilitated Mental Health Services**

Equine Facilitated Mental Health Services (EFMHS) focus on the treatment of mental health issues, such as depression, delinquent behavior, eating disorders, ADHD (Attention Deficit Hyperactive Disorder), and PTSD (Post Traumatic Stress Disorder). A number of different approaches to incorporating the horse within a mental health service exist, yet the majority of differences arise in the use of the horse in either an assisting or facilitation role.

There are two major methods in EFHM services. Each uses the horse in a different manner, assisting the therapeutic process or facilitating it.

In the first method, the horse “assists” in the therapy, or acts as a tool for psychotherapy or counseling, much in the same manner as a ropes course or a group activity. The horse introduces a new challenge for the participant and the participant’s reactions and struggles that arise serve as fodder for discussion with the counselor or therapist. Activities in this specialty include challenging a group of clients to move a
horse over a single jump in the middle of the arena without touching the animal. Another activity consists of catching and haltering a horse without knowing how to put on a halter. This specialty is particularly effective in working with groups or families.

The second method utilizes the horse in a decidedly different manner to provide a different approach to therapy. In this method, the horse “facilitates” the therapeutic process. Rather than the therapist or counselor guiding the session, the horse and client direct it. The therapist’s role is to create a safe and welcome place and to help the client process feelings that arise during their work with the horse. The relationship between the client and the horse trigger memories, emotions, and revelations that allow the client to move past a particular issue.

The cause of these epiphanies and self-knowledge is still unknown. Many professionals point to the horse’s ability to react to microscopic cues in body language that are too small for most humans to recognize. The horse’s keen sense of smell or vision may allow the horse to be receptive to this information. The horse’s reaction to hidden emotions provides a mirror that allows the client to examine their deep thoughts and emotions about a particular subject. Other theories provide a more Freudian approach, in which the horse acts as a blank projector screen for the client to analyze their thoughts and emotions. Still others point to a spiritual guide acting through the horse. Whatever the belief, this specialty’s emphasis on the horse’s reactions and the client’s insight into their inner emotions lends itself well to insight-based therapy.

**Equine Facilitated Education**

Equine Facilitated Education focuses on learning as opposed to mental health treatment. This type of service teaches a variety of techniques to its clients including: life
skills, social skills, and occupational skills. Even general academic concepts are taught. In this setting, the horse acts as motivator for the client or as a mechanism to teach other material. A client who has difficulty learning life skills such as proper nutrition, exercise, and hygiene may be willing to learn as applied to their partnered horse. For example, learning how important proper nutrition is for the horse can translate to learning proper nutrition for the client. Each specialty addresses particular issues and clientele through the use of varying treatment programs and styles to effect treatment and learning; and each has its own need for further research and education.

Organizations and Establishing Guidelines

Treatment programs that use horses in their therapeutic programs have been opening across the country guided by a variety of organizations such as the Delta Society, the Equine Assisted Growth and Learning Association (EAGALA), the Equine Facilitated Mental Health Association (EFMHA), the Equine Guided Education Association (EGEA), the Equine Assisted Goals for Leadership Enhancement Series (EAGLES), Epona Equestrian Services, the O.K. Corral Series, the Gestalt Equine Institute of the Rockies (GEIR), Kaleidoscope Learning Center, and the Certified Horsemanship Association (CHA). Individuals and parents who have had little, if any, success in traditional therapeutic programs are desperately reaching out to these programs for help. Anecdotal evidence supports the field of equine facilitated mental health and many professional believe that equine treatment “can’t hurt” their clients. Unfortunately without establishing guidelines, some businesses and/or organizations can offer services that are unethical or unsafe.
In her thesis on Equine Facilitated Psychotherapy, Susan Taylor (2001) reports hearing stories of, “...mental health agencies referring clients to private for-profit riding programs because it is believed that horses are good for children” (p. 19). Information about the client is shared with the riding instructor, who then develops a program to assist the client. This can create severe problems because equine facilitated psychotherapy is not governed by the same ethics that guide mental health professionals, confidentiality and the therapeutic relationship are weakened or even lacking altogether. Taylor reports that, for some clients, interventions with the riding instructor became the subject of “barn talk” or gossip around the stables. Confidential information about the clients is shared with individuals who do not have any part in their therapeutic intervention.

Beyond the misguided referrals to for-profit riding centers, the field of EFMH/ES has encountered under-trained professionals who endeavor to provide a service. These practitioners come from both sides of the fence, either horse professionals (riding instructors or horse trainers) who want to offer mental health therapy or education service in conjunction with their equine business or teachers / therapists who want to offer an alternative program centered on horses. These practitioners are lacking in the skill sets of professionals trained in both the field of equine science and in the field of education or therapy.

Programs offering certification have formed across the country to provide education for anyone in the field. These programs range from three-day seminars to yearlong apprenticeship. Participants in the certification process are not necessarily aware of the range of training and programs available. Certification is offered to participants in both types of certification programs and the client is generally unaware that any
difference exists between the two. Unfortunately, these clients may engage in a therapeutic equine program with an individual trained at a three-day crash course. Clients should be concerned about safety because there are no formal agreed upon certification process. Some practitioners are engaging in activities with unrestrained and running horses. This is an obvious opportunity for accident or injury to horse or humans. According to Leif Hallberg, insurance companies that underwrite Equine Facilitated Mental Health Services are either increasing their rates or have discontinued coverage completely due to the increasing rate of accidents and the lack of formal education for Equine Facilitated Mental Health practitioners.

People working with horses and humans run into an unusual situation that arises from the horse-human relationship. Clients of the programs are sometimes emotionally triggered by their interaction with the horse, a situation that can be explosive and harmful for the client. Psychotherapists have noted that characteristics of the horse’s gait while riding trigger memories of sexual assault and abuse. Individuals who are not trained to properly handle such a mental health crisis may do more damage to the client’s mental health by allowing the emotionally charged client to leave the premises unsupervised.

Given the complexities and the variety of skills and needs for EFMH/ES, practitioners are organizing to develop standard guidelines and certification for the field. Several groups have approached this from different vantage points. For example, EFMHA created The Certification Board for Equine Interaction Professionals They developed an exam that can be taken online. Currently, thirty-six professionals have become certified through this program (Certification Board for Equine Interaction Professionals, 2008). Education programs have arisen throughout the country including
those at Prescott College, University of Maine, Texas Tech, and Carroll College. Research that reveals mechanisms of action and efficacy of treatment will help guide the development of standards and guidelines. This is needed to help establish EFMH/ES in the traditional mental health industry.

Recent Research

A pivotal book written on the subject is Linda Kôhanov’s bestseller *The Tao of Equus*, which provides anecdotal evidence for the efficacy of equine facilitated mental health and education programs (Kohanov, 2003). Despite the wellspring of support for this new field, little peer-reviewed research has been done on the efficacy of the use of horses in mental health and education programs. Many of these studies lack control groups to account for variables that may influence the results or rely only on case studies to illustrate the effectiveness of treatment.

Burgeon – 2003

One of the first research articles to be published in a peer reviewed recognized journal was an article that appeared in *Anthrozoos* in 2003 (Burgon, 2003). Hannah Burgon had noted the existence of research on the physical effects of hippotherapy, but was curious about the psychological therapeutic effect. She especially wanted to determine if adult subjects in a hippotherapy program benefited in terms of self-esteem, confidence, and increased social skills. Using a case study approach, including questionnaires, interviews, and participant observation, Burgon followed six women who underwent weekly hippotherapy lessons. Participants, in interviews with Burgon, showed increased confidence, exhibited a more favorable self-concept, and acknowledged they had acquired life skills.
Bizub, Joy, and Davidson – 2003

Also in 2003, the *Psychiatric Rehabilitation Journal* published a study completed by Anne Bizub, Ann Joy, and Larry Davidson, which studied the effect of a weekly therapeutic riding program on severely mentally ill individuals (Bizub, Joy, & Davidson, 2003). Five individuals suffering from severe mental illness participated in a riding therapy program two hours a week for ten weeks at the Fellowship Center, a residential center located in Connecticut. Researchers observed noteworthy positive changes in participants’ senses of self-awareness, self-identity, self-efficacy, and self esteem. The participants also showed evidence of a deeper interpersonal connection with others in their community. Many began volunteering and working within the residential treatment facility. Researchers stated, “The results of the study demonstrate that there are numerous benefits to horseback riding for people with psychiatric disabilities” (Bizub, Joy, & Davidson, 2003).

Kaiser, Spence, Lavergne, and Bosch – 2004

One of the first studies to perform a quantitative evaluation on the benefits of equine facilitated mental health services was performed by Lana Kaiser, Linda Spence, Annique Lavergne, and Kerrie Bosch through Michigan State University’s Human-Animal Bond Initiative in the College of Nursing (2004). This pilot study, published in 2004 in *Anthrozoos*, studied the effect of a five-day therapeutic riding camp on anger, self-competence, and quality of life in children. To quantitatively measure these issues, researchers used the Children’s Anger Inventory, Peds Quality of Life, and Self Perception Profile for Children. Using a pretest- posttest design, administering the test
on the first day of camp and again on the last day, investigators were able to determine a significant change in anger levels and increased levels of self-competency.

Administrators of the study were able to suggest possible reasons for the change including the child’s relationship to the horse, the social environment of the camp, the riding activities, increased contact with nature, or a combination of the factors. These suggestions provide for other avenues of research to determine the exact cause of change seen after a therapeutic riding program.

**Roberts, Bradberry, and Williams – 2004**

The *Journal for Holistic Nurse Practitioners* published a study by Florence Roberts, Judy Bradberry, and C. Williams that studied the effect of therapeutic riding on a group of nursing students (2004). They found that the program was as useful for the nursing students as it was for the children who regularly attended the class. The authors hope to determine possible educational benefits from therapeutic riding and hope this alternative program will provide another means of education for nursing practitioners.

**Gatty – Unpublished by 2006**

In an unpublished pilot study by Carolyn Gatty at Chatham College in Pittsburg, physically disabled children were observed to measure the efficacy of therapeutic riding programs on self-esteem. This is one of the few studies, alongside Kaiser, Spence, Lavergne, and Bosch (2004), which utilized an inventory to quantify changes in self-esteem. Gatty used the Rosenberg Self-Esteem Scale for children both prior to and after each session the children attended and found significant gains in self-esteem. The author acknowledges, “These findings were consistent with past studies; although this was the first to yield a statistically significant increase” (Gatty, 2006).
However, this study lacks a control group for comparison, so the effect of the treatment cannot be determined as effectively. Change in the participants may be due to any number of factors, including participation in an education setting or simply the passing of time. Furthermore, Gatty was unable to use a randomized method of sampling, which means that her results cannot be applied to all physically disabled children in this setting. In order for Gatty’s study to illustrate that a change was accomplished through the treatment, a randomly selected control group would be needed to negate the effects of any other variables that would also produce an increase in measured self esteem.

**Bradberry, Roberts and Meinersmann – 2006**

In 2006, researchers Florence Roberts and Judy Bradberry (from Roberts, Bradberry, & Williams, 2004) partnered with Krista Meinersmann to explore the effect of Equine Facilitated Mental Health Services on women who have experienced domestic abuse. These researchers noted that domestic partner abuse is a major public health concern and that EFMHS could be used as a treatment to improve women’s health and safety while increasing their independence and autonomy.

Investigators used a qualitative approach by interviewing participants in an Equine Facilitated Mental Health Program and analyzing the transcripts of the interviews for repeating themes. Recurring themes were identified as Life Changing Experiences, Learning Boundaries, Learning Empowerment, and Learning Breathing. According to researchers, the results indicate that Equine Facilitated Mental Health Programs are effective treatment programs for women who have experienced domestic abuse.
Ewing, MacDonald, Taylor, and Bowers – 2007

A comprehensive study in 2007 by Carrie Ewing, Pamelyn MacDonald, Megan Taylor and Mark Bowers used both quantitative and qualitative techniques to determine the effectiveness of an Equine Facilitated Mental Health program on a group of children with severe emotional disorders. This study, published in Child and Youth Care Forum, was the first to use both quantitative and qualitative techniques to determine effectiveness.

Twenty-eight participants ranging in age from 10 to 13 years were enrolled in a nine-week Equine Facilitated Mental Health Program. Students attended four hours per week of lessons at the ranch as well as continued education in daily school. Students awaiting participation in the riding program served as the control for those who were currently enrolled in the program.

For the quantitative analysis, students were administered a battery of inventories, including the Self-Perception Profile for Children, Empathy Questionnaire, Locus of Control Scale from the Nowicki-Strickland Internal-External Control Scale for Children, Children’s Depression Inventory, and the Children’s Loneliness Questionnaire. These inventories were administered both prior to and after participation in the riding program. While no statistically significant changes were shown after the Equine Facilitated Mental Health Program, researchers suggested that lack of change was due to the severity of the children’s mental illness. It was also noted that the battery was so extensive that the children were unable to maintain their attention during testing. They also observed that the questions in the inventory were difficult for the children to answer, as some of the terms were too difficult to comprehend.
The qualitative analysis showed significantly more effectiveness than the quantitative analysis. Case studies of the participants were developed from interviews with instructors, volunteers at the program, and special education teachers. These case studies indicated a positive change in the participants. In the report, four case studies were used to illustrate the change undergone by the participants. One of those children, dubbed the “feral child” by her teachers due to her out-of-control and wild behavior and her poor personal hygiene, had such a turnaround that she was allowed to return to a traditional middle school after a year with the program.

This study demonstrated the difficulty of using quantitative analysis with a population with severe emotional disorders. Qualitative analysis illustrated a significant change that was undetected by the quantitative inventories. The authors offered several suggestions for researchers interested in replicating their work. Noted areas of difficulty in working with this population included: the young age of the participants, the low functioning levels of the participants, the manner in which the participants were accustomed to psychological testing, and the length of the testing battery. Researchers also pointed out several compounding variables that they had not foreseen while planning the study: the fluctuating family lives of the participants and the large effect of medication on the participants.

**Klontz, Bivens, Leinart, and Klontz – 2007**

A recent study published in *Society and Animals* studied the effectiveness of an equine assisted therapy program on adults. A unique aspect of this study was that researchers continued psychological testing six months after treatment to determine if equine assisted therapy produced lasting and long-term results.
The study included thirty-one participants with a range of ages from 23 to 70 years of age from 13 different states. Each participant attended 8 consecutive equine assisted therapy programs with each program providing 28 hours of equine assisted therapy as part of a 4 1/2 day residential treatment program.

Participants were administered two instruments of psychological testing, the Brief Symptom Inventory and the Personal Orientation Inventory, three times during the study period. Each set of instruments were administered prior to attending the equine assisted therapy program, on the final day of treatment, and again six months after treatment had finished.

After analysis of the psychological instruments, the participants showed a significant and stable positive change. Patients reported fewer psychological symptoms and reduced severity of these symptoms. Researchers also reported that patients were more oriented in the present, less burdened by regret and resentment towards past events, less fearful of future events, more independent, and more self-supportive.

Although this study shows that equine assisted therapy produces stable and positive change, its results are limited. The study does not include a control group or randomized sampling to control for other variables that may affect the data and it relies on patient self-report, which means that patients may attempt to show better improvement than actually occurred.

All of these studies led to my own question. Would EFMH/ES be helpful for troubled or at-risk youth? Would participation in these kinds of programs help them adjust to fit into society? According to the World Book Dictionary, “adjustment” is defined as “the process by which a person adapts him/herself to the natural or social
conditions around him/her“. Troubled or at-risk adolescents can have a difficult time adjusting to society’s conditions and expectations. A program that would be particularly helpful for these adolescents would be a treatment program that affects their ability to adjust. Would EFMH/ES be effective in changing an adolescent’s social adjustment?

If participation in EFMH/ES was an effective treatment for at-risk or troubled youth, then scores on a social adjustment inventory should decrease with participation in an equine program.

Method

Overview

In order to determine the effectiveness of the use of Equine Facilitated Mental Health and Education Services, the scores of an adjustment inventory were compared. Four participants were involved in the study, two in the control group and two in the experimental group. Their scores on an adjustment inventory were compared to determine if any differences appeared between the two groups.

Participants

Four adolescents from the Gallatin Valley Probation Department, three girls and one boy, ranging from 14 to 17 years of age, participated in the program. Two participants, one boy and one girl, comprised the control group, which attended traditional probation therapies, such as traditional talk therapy, weekly meetings with their probation officer and community service. The other two participants, both girls, were additionally enrolled in six months of Equine Facilitated Mental Health services at the Esperanza Center.
Originally, eight participants were included in the study; however, three participants ran away from home during the six-month study duration, one girl from the experimental group and two girls and one boy from the control group. Because they did not complete the second inventory, their data were not analyzed or included in the study.

Informed consent was attained from all participants by their probation officer. All testing was administered and gathered by the probation officers or by Leif Hallberg, MA, owner of the Esperanza Center. The scores were sent to me for analysis with only initials to identify the participants. I had no knowledge or interaction with any of the participants.

Participants were enrolled as part of their agreement with the probation department. Each was selected based on a range of criteria: 14-17 years of age, at least six month probation period, starting the probation program during the month of July 2008, and good likelihood that they would remain in probation during the entire time period. Participants in the experimental group were chosen based on meeting the above criteria and also having previous experience with horses.

Materials

The Reynolds Adolescent Adjustment Screening Inventory (RAASI) was used to evaluate the adjustment level of the participants. The RAASI is a self-report inventory derived from the Adolescent Psychopathology Scales (APS). It is a measure of adolescent adjustment that assesses the severity of emotional and behavioral issues. It consists of 32 questions that provide an Adjustment Total Score and scores for four sub-scales including Anti-Social Behavior, Anger Control Problems, Emotional Disturbance, and Positive Self. Higher scores indicate greater maladjustment.
According to Reynold's *Professional Manual* (2001), the Anti-Social Behavior subscale evaluates a range of antisocial behaviors, such as using drugs or alcohol, engaging in illegal behavior, noncompliance with rules at home or at school, and other behavior problems. The Anger Control Problem subscale assesses loss of temper, arguing with others and other negative behaviors. It includes all behaviors geared towards causing distress in others except for overt aggression. The Emotional Distress subscale measures feelings of excessive anxiety or worry and feelings of general distress. Finally, the Positive Self subscale evaluates basic aspects of self-esteem and sociability.

All inventories were administered by the probation officer or by Leif Hallberg, MA, owner of the Esperanza Center in Bozeman, MT.

**Procedure**

Participants in this group were divided into two groups. Two girls formed the experimental group and attended EFMH/ES as well as performing their other obligations to the Probation Department. The other two participants served as a control group and attended programs and services as determined by their probation agreement, such as community service and meetings with therapists and probation officers.

The program consisted of six months of attendance at the Esperanza Center, an Equine Facilitated Mental Health and Education Service, located in Bozeman, MT. Participants attended three hours of EFMH/ES per week. See Figure 1 for a sample curriculum of an Esperanza session of Equine Facilitated Mental Health Program. Upon beginning his or her six-month attendance at Esperanza, each client was individually given a pretest of the Reynolds Adolescent Adjustment Inventory (RAASI). The same inventory was given six months later, after completion of their Esperanza program.
Participants in the control group were given the same pretest inventory during the same time period (July 2008) and again six months later (January 2009).

Results

Due to the low number of participants, the data could not be analyzed quantitatively. However, a description of the scores illustrates a difference between the two groups. The test scores show that participants in Equine Facilitated Mental Health Services got worse in Total Adjustment and the subscales of Antisocial Behavior, Anger Control, Emotional Distress, and Positive Self.

In Total Adjustment Scores, both participants in the equine therapy had an increase in scores (+7 and +3), meaning a higher level of maladjustment. See Table 1 for scores. On the other hand, the participants in the control group had a decrease in scores (-10 and -9). It appears, based on this small amount of data that participants in the equine therapy got worse in terms of general adjustment.

The subscales showed a similar difference between the two groups. While the control group decreased their scores and got better, the experimental group either remained the same or got worse. See Tables 2, 3, 4, and 5 for the subscale data.

1. In Antisocial Behavior, the experimental group either showed no change or showed an increase of +10, while the control group had a decrease in scores (-21 and -4). See Table 2 for scores in Antisocial Behavior.

2. The scores for Anger Control are shown in Table 3. The experimental group again showed no change or increased in the score of anger control problems (+3). The control group decreased their scores (-3 and -16).
3. In terms of Emotional Distress, the experimental group showed an increase in distress (+21 and +5). On the other hand, the control group scored lower in emotional distress (-5 and -4). The scores in Emotional Distress are shown in Table 4.

4. Unlike the other subscales, the scores for Positive Self, shown in Table 5, appear more similar between groups. Although one participant in equine therapy increased in scores of worthlessness and powerlessness (+4), the other participant in the equine therapy decreased those feelings (a change of -8). The other control participants also decreased these feelings (-4 and -4).

Discussion

The data from this study does not support the hypothesis that Equine Facilitated Mental Health and Education programs have a positive effect on adjustment. Unlike other studies that showed significant improvement in behavior, self-esteem, self-efficacy, or self-awareness, this study instead showed a decline in adjustment in participants who attended the equine facilitated program. Results from this study are interesting and do not support the hypothesis.

A contributor to the lack of change in the sub-scales of Antisocial Behavior, Anger Control Problems, Emotional Distress, and Positive Self may have been due to the small sample size created by participants running away from home. A larger sample size may counteract this issue, as it would allow for the loss of some participants while still retaining a sample large enough to gain statistically significant information. The troubled and unstable home life of these participants made it difficult to determine if change had
occurred due to participation in Equine Facilitated Mental Health and Education programs or other confounding variables.

Participants showed a decrease in social adjustment scores while their counterparts showed an improvement. Further research is needed to determine if these differences stemmed from participation in the program, changes in home life, or were the result of inherent differences between the control and experimental groups.

Acting out behavior was an interesting result in this study group. A theory about why we see this sort of behavior is put forward by Leif Hallberg. She states that acting out behavior is a possible occurrence in equine work with troubled youth (personal communication, March 3, 2009). After her work with juvenile offenders, Ms. Hallberg frequently noticed that many of the participants in her equine activities would act out shortly after her sessions. She theorizes that this behavior may stem from the adolescents’ lack of other coping skills. Equine Facilitated Mental Health services may trigger the client by bringing up memories of sexual assault or eliciting strong emotional responses to the activities. These clients, after leaving the session, have few other coping strategies and resort to a strategy that had been effective in the past, acting out. Until the client begins to learn and internalize new coping strategies, the acting out behavior continues at home and at school.

In one example, a young client was participating in an Equine Facilitated Mental Health session to help move forward in traditional talk therapy. After an exercise in which the client safely jumped off a slowly walking horse to symbolize jumping into the next step of therapy, the client promptly sat on the ground and burst into tears. The client reported that the activity made them feel overwhelmed about the secrets they had been
keeping from the therapist. The next week, one of the counselors reported that the client began to open up more in talk therapy sessions, talking more freely about their past. On the other hand, supervisors at the resident home reported that the client was being disciplined for starting arguments with fellow residents, refusing to cooperate in activities, and talking back to supervisors.

These results suggest that increased acting out behavior may be correlated with participation in Equine Facilitated programs. While further research is needed, this implies that parents and guardians should be aware of and observant for acting out behavior while undergoing the Equine Facilitated Mental Health and Education process.

Further research is needed to confirm this theory and answer several other related questions. Is acting out behavior a coping strategy of this troubled clientele? Is this a transient behavior that will fade as therapeutic sessions continue?

The efficacy of Equine Facilitated Mental Health and Education Services continues to be a field in need of extensive research and testing. In order to illustrate that EFMH/ES is effective in treatment of mental illness or behavioral problems researchers should investigate the extent of illnesses and issues effectively addressed by these services, the cause of the change in participants, and the kind and extent of significant change in these participants. These investigations will help to build the new field and encourage proper ethical and professional oversight.
References


### Table 1

Test Scores of Adjustment Total

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<th>Change</th>
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### Table 2

Test Scores on Antisocial Behavior

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### Table 3

**Test Scores on Anger Control**

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### Table 4

**Test Scores on Emotional Distress**

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Table 5
Test Scores on Positive Self

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Figure Captions

Figure 1: Sample Day of Equine Facilitated Mental Health Services
Figure 1:

Safety Agreement and Theme Introduction

Students will say their safety agreement and be introduced to the theme for the session (connection and safety). Clients will be led in a discussion about:

- Part A: Clients will tell staff how they are connected – to each other, to this place, to the staff. Who do they know, how do they know them, or not etc.
- Part B: Discuss ways in which they can keep themselves safe – here, at the group home, in life. Discuss if they have been safe and not instances when they haven’t. Do they know the difference?

Review of Equine Communication and Herd Dynamics

Staff will ask clients what they know/remember about equine communication and herd dynamics, especially as it relates to keeping themselves safe.

Mutual Choosing

Each client will take time to interact with each horse. Interactions may include, but are not limited to, observing the horse, petting the horse, feeding the horse, or talking to the horse. Clients will then choose their horse partner based on which horse they felt most drawn to. Clients will be led in a discussion:

- What did they notice about the horse they were drawn to?
- Why did they think they were drawn to the horse?
- Where they safe during the activity?
- Was their choice in horse partners safe?

Staff will apply their knowledge about the client and the chosen horse.

- What does this choice imply about the client?
- Is this a safe horse for the client to work with?
- Can the client identify if this was a safe or unsafe choice?
- Why was this horse chosen?
- Does the choice reflect a relationship in their life?
- Can the client identify the relationship symbolized?

Draw Your Horse

Clients are asked to draw themselves with the horse they chose in the previous activity. In this activity the facilitator is looking for aspects regarding connection.

- Are the clients connected or disconnected?
- What are the clients aware of?
• Do the clients draw themselves connected or disconnected from their horse partner?

Closure

Clients are led in a discussion:
• What does their week look like?
• What are they looking forward to?
• What are the challenges or struggles that they will face this week?
• How are they going to keep themselves safe this week?
• How are they going to use connection this week?
• How can they help each other with their struggles?

Homework

Clients will write in their journal about their experience during the session. Throughout the week, they will journal about challenges they faced, how they handled them, and situations in which the themes of this week arose.