HORSES THAT HEAL: THE EFFECTIVENESS OF EQUINE ASSISTED GROWTH AND LEARNING ON THE BEHAVIOR OF STUDENTS DIAGNOSED WITH EMOTIONAL DISORDER

By

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Abstract

Students with a diagnosis of Emotional Disorder (ED) have a wide range of academic and behavioral problems (Gable, Hendrickson, Tonelson & Van Acker, 2002). The issues these children face can adversely affect student academic performance and hinder social relationships (Kauffman, 2001). One method alone will not resolve complex emotional disorders. Multiple interventions are needed to serve this population. This research project examines how Equine Assisted Growth and Learning (EAGAL) influences the classroom behavior of elementary school students diagnosed with ED in a special education setting. Using the Illinois Learning Standards for Social Emotional Learning (Stage D), Goals Standards and Objectives, two goals were used to form objectives for this study. They were carried out using EAGAL as the intervention method. A group of 10 students were asked to participate in this study to determine if EAGAL is an effective intervention for students diagnosed with ED.

Horses that Heal: The Effectiveness of Equine Assisted Growth and Learning on the Behavior of Students Diagnosed with Emotional Disorder

CHAPTER I

Introduction

Children and adolescents diagnosed with Emotional Disorder (ED) characteristically present both behavioral and achievement problems that interfere with schooling (Nelson, Benner, Lane & Smith, 2004). A substantial amount of literature documents that students with ED manifest a wide range of problems from impulsive, antisocial and aggressive behavior to social withdrawal and isolation (Gable, et al., 2002). These problems not only affect their academic progress, they also interfere greatly with social relationships (Kauffman, 2001).

No single method will resolve complex emotional disorders; multiple interventions are needed to serve this population. Many students receive numerous services due to the complications of the diagnosis. It is suggested by Forgan & Jones (2002) that one such intervention should be experiential based.

Experiential learning activities help develop an atmosphere of acceptance in which students are willing to take risks, share, discuss and even problem solve together (Forgan & Jones, 2002). By participating in experiential learning, students can improve their behavior and self-concept while learning valuable skills that promote success in the classroom (2002). Plato stated "You can discover more about a person in an hour of play than in a year of conversation" (as cited in Forgan & Jones, 2002, p.53).

Equine Assisted Growth and Learning (EAGAL) is experiential learning at its best. EAGAL is a model of Equine Assisted Psychotherapy (EAP). Equine Assisted Psychotherapy is an emerging field in which horses are used as a tool for emotional growth and learning (EAGALA, 2006; Kersten & Thomas, 2005a; Kersten & Thomas, 2005b).

The EAGAL model of EAP is a collaborative effort between a licensed therapist and a horse professional (2005a; 2005b). EAP is experiential in nature, meaning that participants learn about themselves and others by participating in activities with horses and then processing the feelings, behaviors and patterns (2005a; 2005b). The focus is in setting up activities with the horse, which will require the student or group to apply certain skills. Several examples of tools utilized and developed by Equine Assisted Psychotherapy are (a) nonverbal communication, (b) assertiveness, (c) creative thinking, (d) problem solving, (e) leadership, (f) taking responsibility, (g) teamwork, (h) relationships, (i) confidence and (j) attitude (2005a; 2005b).

Statement of the Problem

Children with ED face a variety of trials. These students exhibit a wide range of emotional, behavioral and social difficulties that result in substantial challenges to school, teachers, parents, and peers. Often the problems faced by children with ED are so severe that they require intervention from special education and mental health systems (Wagner, Friend, Bursuck, Kutash, Suchnowski, Sumi, & Epstein, 2006).

When planning interventions for students with ED it is important to keep in mind that the goal is to teach the student skills that will assist them in regulating their own behavior

(Bullock & Gable, 2006). Those who work with these students must realize that all children do not respond equally to intervention efforts (Lane, Gresham, & O'Shaughnessy, 2002). It is most effective to provide a variety of interventions.

Equine Assisted Growth and Learning is an experiential intervention that can be used with the ED population. There is a limited amount of research in this field, which consists primarily of anecdotal and qualitative investigations. This is a powerful solution-oriented approach to dealing with the emotional and behavioral difficulties that interfere with the academic and social lives of students with ED (Kersten & Thomas, 2005a; Kersten & Thomas, 2005b).

Purpose of the Study

This study will examine the effectiveness of Equine Assisted Growth and Learning as an intervention for students diagnosed with Emotional Disorders. The focus will be on the improvement of classroom behavior; specifically, identifying and managing behavior and emotions, as well as using communication and social skills to interact effectively with others. Information will be collected from school staff that works with a participating group of students on a daily basis. A pre-test will be given to staff prior to the start of the intervention, and then the post-test given after the fifth week of intervention.

Questions of the Study

This research will answer the following questions in regard to the student's behavior in the special education setting:

(a) Does Equine Assisted Growth and Learning help students to identify and manage behavior? (b) Does Equine Assisted Growth and Learning help students use learned communication and social skills to interact with others?

Limitations of the Study

There are several limitations of this study. First of all, it is important to note the small sample size. The project is limited to a group of 10 students. The fifth and sixth grade students that were included represent a limited age group.

Next, geographic area was limited. The group was restricted to a single sample from a therapeutic day school in the western suburbs of Chicago. A third constraint is the students' participation in the program. Cooperation in the activities as well as regular attendance in the program itself has an effect on the outcome of the study. The next consideration is the potential bias that may result from school staff that completed the survey, both pre- and post- intervention. The fact that this study lacks a control group must also be taken into account.

A variable that needs consideration as a potential weakness of this study is that all participants had been taking psychotropic medications during the study period. It may not be possible to differentiate the effects of medication from the effects of treatment in these cases. Also, some students may be involved in outside "talk" therapy while participating in this study.

Another limitation is the lack of research in this area thus far. EAP is still an growing field; the research available is primarily qualitative. Existing reports appear to be documentation of experiences, anecdotal and personal accounts.

The time frame for completion also limits the outcome. The time frame was restricted by the schedule designated by the Multicategorical Special Education program at Governors State University. This study meets the exemption requirements of the *Human Subjects Research Policy of Governors State University* according to criteria and information posted on its webpage http://www.govst.edu/irb. An IRB form was completed by the researcher and submitted to the faculty of *Special Education 865: Graduate Seminar in Special Education* and is included in the appendices of this document.

Educational Significance of the Study

Children and youth with emotional disorder require and receive services from a variety of agencies (Center for Effective Collaboration and Practice, 2001). Emotional Disorder is one of thirteen disability categories specified under the Individuals with Disabilities Education Act (IDEA) (2001). Certain students who meet the eligibility requirements for ED must be placed in an alternative setting, due to the severity of the disorder. Given the complex nature of these disorders, teachers and staff must provide a wide variety of interventions (2001).

This study will examine students with ED who have been placed in a therapeutic day school. The severity of their specific disorder has required them to be placed outside the regular education environment. Therapeutic school was deemed least restrictive.

It has been stated that experiential learning activities can improve students' behavior and self-concept as well as teach valuable skills that promote success in the classroom

(Forgan and Jones, 2002). In this study, the stage D Illinois Learning Standards for Social and Emotional Learning were used as a guideline for an experiential intervention.

Equine Assisted Growth and Learning is projected to aid in the classroom behavior of students diagnosed with ED. It is aimed at helping students to identify and manage emotions and behavior. It teaches students to use communication and social skills to interact effectively with others in the classroom.

Little research has been done in the field of Equine Assisted Growth and Learning with respect to students diagnosed with ED. Although the use of EAGAL is growing in popularity, it remains a developing field. This research project has set out to demonstrate the effectiveness of EAGAL with this population.

Definitions of Terms

Emotional Disturbance. (ED) a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance-(a) An inability to learn that cannot be explained by intellectual, sensory, or health factors. (b) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers. (c) Inappropriate types of behavior or feelings under normal circumstances. (d) A general pervasive mood of unhappiness or depression. (e) A tendency to develop physical symptoms or fears associated with personal or school problems.

As defined by the IDEA, emotional disturbance includes schizophrenia but does not apply to children who are socially maladjusted, unless it is determined that they have an

emotional disturbance (National Dissemination Center for Children with Disabilities, 2004).

Equine. Pertaining to, or like a horse (American Heritage, 1982).

Equine Assisted Growth and Learning. (EAGAL) A model of Equine Assisted Psychotherapy (EAGALA, 2005).

Equine Assisted Psychotherapy. (EAP) Equine Assisted Psychotherapy is an emerging field in which horses are used as a tool for emotional growth and learning (EAGALA, 2006).

Experiential. Relating to or derived from experience. The knowledge or skill acquired from actual participation or training in an activity (American Heritage, 1982).

Horse Professional. Equine Specialist. During an EAP session the horse professional focuses on the physical safety aspects and non-verbal communication from the horses (Kersten & Thomas, 2005b).

Learning Disabilities. (LD) A disorder in one or more of the basic processes involved in understanding spoken or written language. The disorder may manifest itself as a problem in listening, thinking, speaking, reading, writing, spelling or math, despite at least average intelligence. Individuals with learning disabilities encounter difficulty in one or more of seven areas; (a) receptive language, (b) expressive language, (c) basic reading skills, (d) reading comprehension, (e) written expression, (f) mathematics calculations, (g) mathematical reasoning (Lerner, 2003).

Model. A tentative description of a system or theory that accounts for all of its known properties (American Heritage, 1982).

Psychotropic Medications. Any medication capable of affecting the mind, emotions, and behavior (MedicineNet, Inc., 2006).

North American Riding for the Handicapped Association. (NARHA) A national non-profit organization that promotes the benefit of horses for individuals with physical, emotional and learning disabilities (NARHA, 2006)

Equine Facilitated Mental Health Association. (EFMHA) A special section of NARHA. The EFMHA concentrates primarily on the use of Equine Facilitated Psychotherapy (EFP) (EFMHA, 2006).

Equine Guided Education Association. (EGEA) Promotes the interaction of the horse as a respected 'guide' in human growth, learning and development (EGEA, 2006).

Equine Assisted Growth and Learning Association. (EAGALA) A non-profit organization developed to address the need for resources, education, and professionalism in the field of Equine Assisted Psychotherapy (EAGALA, 2006).

Summary

Students with a diagnosis of Emotional Disturbance have a wide range of academic and behavioral problems (Gable et al., 2002). The issues these children face can adversely affect social relationships (Kauffman, 2001). One method alone will not resolve complex emotional disorders; multiple interventions are needed to serve this population.

Experiential designs rank in the top of the many different types of interventions that could be effective with ED. One popular experiential modality is Equine Assisted Growth and Learning. Equine Assisted Growth and Learning is a model of Equine Assisted

Psychotherapy, a growing field in the area of experiential methods. This study will attempt to show the effectiveness of EAGAL with students diagnosed as having ED.

CHAPTER II

Review of Literature

Emotional Disorders

According to the United States Department of Education (2002), public focus on students with behavioral problems has increased in recent years for three reasons. First, disruptive behavior interferes with the educational process and places a burden on teachers. Concerns about the quality of education in the United States has called greater attention to students who cannot, or will not, follow classroom rules (2002). Second, today's youth are much more at risk for negative outcomes as a result of long term exposure to poverty, social fragmentation and violence in their communities. Academic success is viewed as a pathway to a productive future, while recovery from academic failure and school drop out can be extremely difficult (2002). Third, students with behavioral and emotional disorders are often involved in acts of school violence – either as perpetrators or victims (2002).

Definition

Many terms are used to define emotional disorders. Currently, students with such disorders are categorized as having and emotional disturbance, which is defined under the Individuals with Disabilities Education Act (IDEA) as: A condition that adversely affects a child's educational performance with symptoms including; (a) an inability to learn that cannot be explained by intellectual, sensory or health factors; (b) an inability to build or maintain adequate interpersonal relationships with peers and teachers; (c) inappropriate types of behavior or feelings under normal circumstances; (d) a general pervasive mood

of unhappiness or depression; (e) a tendency to develop physical symptoms or fears associated with personal or school problems. Children diagnosed with ED will exhibit one or more of the above characteristics, over a long period of time and to a marked degree. The term includes schizophrenia. However, the definition does not apply to children who are socially maladjusted, unless it is established that they have an emotional disturbance (NICHCY, 2004, Center for Effective Collaboration and Practice, 2001).

History

It was not until the early 20th century that an emphasis on the mental health needs of children and adolescents emerged. This emphasis has become more pronounced over time (Bullock & Gable, 2006). Within the past ten years, there has been an increase of about 28% in the number of students with disabilities served through IDEA (Bullock & Gable, 2006, U.S Dept. of Education, 2002). The category of ED represents 8.2% of all students served (Bullock & Gable, 2006, U.S. Dept. of Education, 2002). In the 25 years since the inception of P.L 94-14 (Education for All Handicapped Children Act), the number of students with disabilities who receive services under one of the 12 disability categories has grown to over five million (U.S. Dept. of Education, 2002).

Children's Bureau. Among the first signs of recognition and involvement of the federal government regarding mental health services for children and adolescents was the establishment of a Children's Bureau around 1912 (Bullock & Gable, 2006; United States Children's Bureau, 2005). The Bureau was established out of heightened concern for general social welfare issues (United States Children's Bureau, 2005). Although it was a

positive step, the Bureau failed to put forth any policies regarding children's mental health services (2006).

Child and Adolescent Service System Program. In 1984, the National Institute of Mental Health established the Child and Adolescent Service System Program (CASSP) (Bullock & Gable, 2006). The CASSP produced a policy that is known as "A System of Care for Children and Youth with Serious Emotional Disturbances" (2006).

Alcohol, Drug abuse Mental Health Administration Reorganization Act. The U.S. congress passed the Alcohol, Drug abuse Mental Health Administration Reorganization Act in 1992 (Bullock & Gable, 2006). This law strengthened the development and support of systems of care for children and adolescents with serious emotional disorders and their families (2006).

Mental Retardation Facilities Construction Act. Adding to the abovementioned, there were two major legislative initiatives enacted in the 20th century that had an immediate and dramatic effect on services for children and adolescents with emotional and behavioral disorders. In 1963, the Mental Retardation Facilities Construction Act, P.L. 88-164 (Bullock & Gable, 2006) was the first federal legislation in the United States to provide funds to institutions of higher learning to assist in the preparation of education personnel to work with students with all types of disabilities, including those with emotional problems (2006).

P.L. 94-142. The ratification in 1975 of The Education for all Handicapped Children Act (P.L. 94-142), required that a free and appropriate public education (FAPE) be provided for all children with disabilities (Bullock & Gable, 2006). The title of the law

was changed in 1990 to the Individuals with Disabilities Education Act (IDEA) (2006). This law has been amended and reauthorized several times, the most recent of which was P.L. 108-446 passed in 2004 (2006).

Characteristics

Children and adolescents with ED face a range of challenges. These challenges can impair psychosocial adjustment, parent and peer relationships, and school performance. Difficulties are often severe enough to warrant intervention from the special education/mental health systems (Wagner, et al., 2006).

The emotional, behavioral, and social difficulties exhibited by children with ED result in substantial challenges to schools, teachers, parents, and peers. These trials cut across disciplinary, instructional, and interpersonal domains (Gresham, 2005; Nelson, Benner, Lane, Smith, 2004). Often students who demonstrate such challenges have a chaotic school and classroom environment (Gresham, 2005; Nelson, Benner, Lane, Smith, 2004).

Typical Diagnoses. Students with ED who are eligible for services under IDEA typically exhibit mood disorders, anxiety disorders, ADHD, conduct disorders, or other psychiatric disorders. Co-morbidity of emotional and behavioral disorders is common (Center for Effective Collaboration and Practice, 2001). The co-occurrence of emotional disturbance and other disabilities may intensify a student's behavioral problems and further compromise academic performance (Center for Effective Collaboration and Practice, 2001).

Characteristic Behavior. Some of the characteristics and behaviors seen in children who have ED include: Hyperactivity (short attention span, impulsiveness); aggression or

self injurious behavior (acting out, fighting); withdrawal (failure to initiate interaction with others, retreat from exchanges of social interaction, excessive fear or anxiety); immaturity (inappropriate crying, temper tantrums, poor coping skills) and learning difficulties (academically performing below grade level) (NICHCY, 2004).

Students with ED exhibit a number of negative behaviors. Some of these students act out and are both verbally and physically aggressive. They can be hyperactive, oppositional, and argumentative (Kauffman, 2001, Abrams, 2005). Many have poor impulse control, are easily frustrated and lack self control. They often have limited insight into their behavior, blame others for their behavior and exhibit poor social skills (Kauffman, 2001, Abrams, 2005).

Behavior of students with emotional disorders is often inconsistent, anti-social, maladaptive and self defeating (Abrams, 2005). Others are withdrawn, anxious and defensive. Added to these characteristics is the reality that many of these students have limited academic skills, poor attention span and low levels of motivation in the classroom (Kauffman, 2001, Abrams, 2005).

Internalizing Behavior. Not every problem behavior that adversely affects student functioning is attention getting, easily or frequently observed, or directly affects other students in the school setting (U.S. Dept of Education, 2002). Problem behaviors that primarily affect the individual student are referred to as internalizing problems (2002). Examples of such behaviors are loneliness, depression and chronic sadness. Other internalizing behavior--such as extreme shyness, anxieties and phobias--may inhibit the

student's ability to function in social situations or cause a child to behave in ways that are perceived as odd, selfish or arrogant (2002).

Internalizing behaviors interfere with learning and social development. This can be just as limiting as other types of problem behavior (U.S. Dept of Education, 2002). Because these behaviors may not disrupt classroom activities or other students, they may not receive attention or even be noticed by school staff (U.S. Dept of Education, 2002).

According to the U.S. Dept. of Education (2002), 18% of students with ED are reported to be "lonely" or "sad and depressed." In other disability categories the percentage ranges from 3% to 8%. Sixty percent of students with ED are reported to be "easily distracted" in comparison to other disability categories which varies from 27% to 40%.

Externalizing Behavior. Externalizing problem behaviors are those that are most observable and receive the greatest amount of attention from school personnel and general public (U.S. Dept of Education, 2002). Externalizing problem behaviors include fighting, threatening, defiance, bullying, excessive anger, arguing, theft, vandalism or drug use (2002). Children who exhibit externalizing problem behaviors often present the greatest immediate risk for an individual student as well as to others in the classroom or school. Externalizing behaviors are linked to a range of undesirable outcomes such as social maladjustment, school failure, dropout and even incarceration (2002).

According to the U.S. Department of Education (2002), students with ED were reported more likely to frequently engage in externalizing behaviors than other students (fighting-24%, arguing-40%). By contrast, fewer than 10% of students in all other

disability categories were reported to "fight with others" and fewer than 18% were reported to "argue with others." Fifty percent of students with ED were reported to frequently act "impulsively" (2002). Rates for students in other disability categories in the area of impulsivity ranged from 19% to 30% (2002).

Socialization. Research reported by van Lier et al. (2004) has shown that young children are well aware of differences in the level of disruptive behavior in peers as early as elementary school entry. As disruptive children grow older, they are increasingly regarded as deviant by their non-disruptive peers and are frequently rejected by them (2004). The disruptive and increasingly disliked child is finally left with few social settings that provide correction on his or her behavior and will ultimately drift toward similarly deviant peers (2004).

A defining characteristic of students with ED relates to problems in socialization. Research indicates that students with ED struggle to accurately assess and appropriately respond to various social situations (Panacek & Dunlap, 2003). According to the U.S. Department of Education (2002) empirical research supports the view that competence in social exchanges are a key factor in engagement at school and in academic success. School success may be minimal for students who have difficulties building social relationships (Smith & Gilles, 2003).

A common social characteristic of students with ED is behavioral disinhibition or the limited capacity to manage their behavior, especially under stressful situations (Gable, et al., 2002). Some students with ED misinterpret social situations and respond in ways that have been reinforced in the past (e.g. anger, aggression, social withdrawal) (2002).

Students may find it difficult to suppress deep-rooted responses even though they are socially unacceptable. These same students may lack the ability to self-regulate or monitor their own covert or overt behavior, or both (2002).

Smith and Gilles (2003) stated that achieving success in school, on the job and in the community is contingent upon the ability to interact appropriately with others. Social skills and quality of life indicators lead to long term positive social status (2003). Socialization of children becomes vital, as the number and intensity of associations with peers and teachers increase in the transition from early childhood to elementary school age (van Leir, et al., 2004). These relationships play a crucial role in the emergence, manifestation, and maintenance of disruptive syndromes (2004). Appropriate social skills can contribute to academic achievement, positive peer relations, inclusion in effective learning opportunities and family harmony (Smith & Gilles, 2003).

The U.S. Department of Education (2002) reports that problems in social functioning usually indicate difficulties in multiple domains. Students receiving special education include a disproportionate number of students who are at high risk for delays or difficulties in social development. Students with autism and ED are prominent among this population (2002). Consequently, difficulties in acquiring social skills that lead to social competence can present significant barriers in adjusting to school and life, and result in negative consequences (Smith & Gilles, 2003).

In terms of total life functioning, a social problem may be far more disabling than an academic dysfunction. A social disability affects almost every aspect of life including school, home and play (Lerner, 2003). It is important to keep in mind that appropriate and

inappropriate behavior takes a long time to learn and even longer to unlearn (Gable, et al., 2002).

The social lives of students with ED are often very stressful in and out of school. The behavioral, social, and emotional deficits of these students often result in low self esteem, a negative self image, and a social environment in which many of their psychological needs are unmet (Abrams, 2005). Deficits in social skills are probably the most crippling type of problem that a student can have (2005).

According to Smith and Gilles (2003), quality of life has improved for students who display emotional or behavioral disorders when they exhibit learned behaviors that are valued by the community in new and novel situations over a long period of time. Simply sharing information about appropriate responses may not be powerful enough to change the behavior (2003). Direct intervention may be needed to ameliorate behavior problems that stem from the student's cumulative learning history (Gable, et al., 2002). Change agents need to actively attempt generalization rather than assume it is a logical training outcome (Smith & Gilles, 2003).

Cognitive Skills. Students with ED may be deficient in various cognitive skills (Kauffman, 2001). Students may manifest problems in the area of critical thinking and problem solving. These children may struggle to discriminate among various response options and fail to successfully engage in behavior that is deemed socially acceptable and appropriate (2001).

Causes of ED

The causes of ED have not adequately been determined. Various factors such as heredity, brain disorders, diet, stress, and family functioning have been suggested as possible causes by organizations such as the National Dissemination Center for Children with Disabilities (NICHCY) (2004). Research has not found any specific factor to be a direct cause of behavioral and emotional problems (NICHCY, 2004).

Emotional Disorders In the schools

Children with ED consistently show moderate to severe academic achievement deficits in relation to normally achieving peers (Nelson, Benner, Lane and Smith, 2004). A dichotomy sometimes exists in program priorities for students who manifest learning versus behavior problems. For students classified as LD, emphasis is on remedial or compensatory instruction. For students with ED, getting behavior under control usually takes precedence (Gable, et al., 2002). Researchers have found that students with ED perform 1.2 to 2 grade levels behind their peers while in elementary school, and this discrepancy worsens with age (Ryan, Reid, & Epstein, 2004).

On the other hand, Anderson and colleagues (2001) found that students with ED performed significantly better than those with learning disabilities on reading and mathematics in kindergarten and first grade but not in the fifth and sixth grade. The reading scores of students with emotional and behavioral disorders did not improve over time. However, students with LD showed statistically significant improvement in the five years from intake to follow up. These findings provide evidence to suggest that ED may

have more adverse impact on academic achievement over time than do learning disabilities (Anderson, Kutash, & Duchnowski, 2001).

Placement

ED in Inclusive settings. Schools all over the U.S. are struggling to serve students with ED in the regular education classroom (Bullock & Gable, 2006). Students with ED have a very difficult time in inclusive classrooms. This may be attributed to several factors. Students with externalizing behavior problems are able to disrupt the events in any setting. Few teachers tolerate disruptive behaviors of students with ED. These children are viewed as "troublemakers" and their behaviors are broadly considered unacceptable in the classroom (2006).

In addition to the "troublemakers," there are the students whose behaviors are characterized as internalizing. As stated previously, many of these students appear to be unmotivated, passive and disinterested in school (Bullock & Gable, 2006). Some may be overanxious, phobic or social isolates (2006). A study conducted by Nelson and colleagues (2004), found that overall, students with ED who exhibit externalizing problem behavior were more likely to experience academic achievement deficits than students who exhibit internalizing behavior (2004).

The interaction between disruptive children and their regular education teachers is characterized by disobedience, coercion, as well as numerous corrections and punishments (van Leir, et al., 2004). This relationship results in a negative spiral of emphasis on disruptive behavior (2004). Classroom observations have shown that in all initiations of teachers with disruptive children, only about 11% involved support for

appropriate behavior, compared with 82% of the initiations with non-disruptive classmates involving support for appropriate behavior (2004). Therefore, the interaction between disruptive elementary school children, peers and teachers will ultimately result in stable patterns of coercive and aggressive behavior, maladaptive associations with similarly deviant children, and poor outcomes associated with disruptive behavior in adolescence and adulthood (2004).

Day and Residential Treatment. Day treatment and residential schools are two of the more restrictive educational placements within the continuum of services for students with ED (Gagnon & Leone, 2006). A variety of settings are necessary to assure varied levels of restrictiveness and meet each students needs (2006). These educational programs must be compliant with requirements of the IDEA.

More students between the ages of 6-21, who have emotional disorders, are placed in restrictive settings than youth with any other disability classification. Currently, approximately 80,000 students with ED are educated in separate day or residential schools (Lane, Gresham, & O'Shaughnessy, 2002; Gagnon & Leone, 2006). The U.S. Department of Education (2002) documents a large percentage of students between the ages of 6-17 with ED receive services outside the regular setting in public schools. The number of students with ED served in day treatment and residential settings has increased more than 13% in the last 10 years (2002).

Day treatment schools are structured day programs that offer a combination of mental health intervention and special education to children and adolescents, as well as social and clinical support to their families (Gagnon & Leone, 2006). Residential schools for

students with ED are comprehensive therapeutic educational settings where students have 24- hour monitoring and their social, emotional, and educational needs are addressed (Gagnon & Leone, 2006). The National Dissemination Center for Children with Disabilities (2004) states that educational programs for children with ED need to give attention to providing emotional and behavioral support, as well as helping them to master academics and develop social skills, increased self-awareness, self control and self-esteem.

School Outcomes

Students with ED are associated with several negative outcomes as they progress into adolescence and adulthood (van Leir et al., 2004). These results may include greater risk for school failure and academic difficulties, poor peer relationships, early initiation of substance abuse, conduct disorder, juvenile delinquency conviction for violent crimes, and increased risk for mental disorders in adulthood (2004).

The overall outcomes for students with ED are appalling. Results cited by the U.S. Department of Education (2002) indicate that children and adolescents with ED fail more courses, earn lower grade point averages, miss more days of school and are retained more often than other students with disabilities. These students are at increased risk for alcohol, tobacco and drug use (2002).

In addition, 55% leave school before graduating, and only 42% graduate (U.S. Dept of Education, 2002; Bullock & Gable, 2006). Approximately 58% of students with ED are arrested three to five years out of high school (U.S. Dept of Education, 2002; Bullock & Gable, 2006). School factors such as lack of academic and social supports, reactive

teaching styles and frequent changes in placement contribute to these outcomes (Bullock & Gable, 2006).

Research indicates that outcomes for children and adolescents with ED can be greatly improved. Bullock and Gable (2006) suggest interventions that are (a) sustained, flexible, positive, collaborative culturally appropriate and regularly evaluated; (b) are built on the strengths of the students and their families and (c) address academic and social behavior deficits. Programs aimed at the reduction of classroom behavior with disruptive students in the social context are important for the prevention of such behavior (van Leir et al., 2004).

Interventions

When considering interventions or disciplinary actions for students with disabilities, it is essential to understand that while students in all categories are suspended, students with ED are suspended far more frequently (U.S. Dept. of Education, 2002; Lane, Gresham, & O'Shaughnessy, 2002). The U.S. Department of Education (2002) documents that nearly 50% of students with ED have been suspended or expelled at some time in their school careers. Students in other disability categories that have been suspended or expelled ranged from 15-17% (2002).

Students served under the category ED will require intensive interventions. Such mediation generally targets students with the most severe and resistant behaviors (Gresham, 2005). These students will require the most intense, individualized, and comprehensive system of intervention supports involving multiple social agencies such as mental health, juvenile justice, and social services (Gresham, 2005).

When planning interventions for students with ED, it is important to keep in mind that the ultimate goal is to teach the students skills that will enable them to regulate their own behavior (Bullock & Gable, 2006). It is equally important to recognize that children do not respond uniformly to intervention efforts (Lane, Gresham, & O'Shaughnessy, 2002). Skills to keep in mind when preparing for intervention include; improving ability to control emotional reactions, adjust to complex social situations, deal with challenging academic and social difficulties, manage anxiety and achieve personal goals (Bullock & Gable, 2006).

Experiential Learning

Definition

Experiential learning is an approach to education that has grown in popularity over the past twenty years (Luckner & Nadler, 1997). The Association for Experiential Education (2006) defines experiential learning as a philosophy and methodology in which educators purposefully engage learners in direct experience and focused reflection in order to develop skills, increase knowledge and clarify values. In experiential learning, activities are structured to require the learner to take initiative, make decisions and be accountable for results (2006). The design of the learning experience includes the possibility to learn from natural consequences, mistakes, and successes (2006).

History

John Dewey. The first concepts of experiential learning were developed in the early 20th Century by the educational philosopher, John Dewey (Mowen & Harder, 2005). He was an early promoter of the idea of learning through direct experience, action and

reflection (Stevens & Richards, 1992). Since that time, Dewey's ideas have been shaped and refined.

David Kolb. In 1984, David Kolb proposed the Experiential Learning Model for adult education (Mowen & Harder, 2005). Kolb suggests that learning is a cyclical process (2005). Kolb's model was eventually tailored and employed by many interested in experiential learning (2005).

Carl Rogers. Carl Rogers, an influential American psychologist, is best known as the founder of 'client-centered' or 'non-directive' therapy (Kearsly, 2006). Rogers distinguished two types of learning: cognitive (meaningless) and experiential (significant) (2006). Cognitive learning corresponds to academic knowledge such as learning vocabulary or the multiplication tables. Rogers' view of experiential learning refers to applied knowledge (2006). Rogers believed that experiential learning is equivalent to personal change and growth (2006).

Why use experiential learning?

Forgan and Jones (2002) state that by participating in experiential activities students can improve their behavior and self-concept while learning valuable skills that promote success in the classroom. Consistent use of experiential activities to teach social skills to students with high incidence disabilities can elicit positive student change that results in a decrease in student misbehavior and increases in problem solving skills (2002). Experiential programs can achieve notable outcomes and have particularly strong, lasting effects (2002).

The 4-H Cooperative Curriculum System (4-HCCS) (2006) lists several advantages to using experiential learning. First, the use of multiple senses can increase retention of what is learned, (b) child-centered learning becomes the focus, (c) multiple teaching and learning methods can be integrated to maximize creativity and flexibility. (d) The process of the discovery of knowledge and solutions builds competence and confidence (e) learning is more fun for the children, and teaching is equally as fun for the adult leaders. (f) Students who are actively engaged in learning, have a greater stake in the outcome of what they learn and are less likely to become discipline problems; (g) youth can learn life skills that will be used continuously in addition to subject matter content (2006).

Throughout the experiential learning process, the student is actively engaged in posing questions, investigating, experimenting, problem solving, being curious, assuming responsibility, being creative and constructing meaning (Association for Experiential Education, 2006). Learners are engaged intellectually, emotionally, socially, and physically. The results of the learning is personal and form the basis for future experience and knowledge (2006).

During experiential learning activities, relationships are developed and nurtured: learner to self, learner to others, learner to the world at large (Association for Experiential Education, 2006). Since the outcome of the experience cannot be totally predicted, the student may encounter success, failure, adventure, risk taking, and uncertainty, (2006). Experiential activities help develop an atmosphere of acceptance, where students are willing to take risks, share, discuss and problem-solve together (Forgan & Jones, 2002).

The role of Processing.

During group activity processing, or debriefings, students discuss target behaviors and issues such as, working toward a group goal rather than individual goals (Forgan, & Jones, 2002). Processing is designed to encourage individuals to plan, describe, reflect upon, analyze, and communicate about their experiences. Processing can be viewed as the driving force behind the experiential learning cycle. Discussion or processing the activity can occur prior to, during and after the experience (Association for Experiential Education, 2006; Luckner & Nadler, 1997).

Equine Assisted Growth and Learning

Introduction to Equine Assisted Growth and Learning

Horses have been part of the physical therapy field since the early 1970's. Additionally, they have more recently began to play a role in the field of mental health (Rothe, Vega, Torres, Soler, & Pazos, 2005). Horses have proven to be versatile and dynamic assistants in therapy. The specific needs and issues of clients can elicit a range of behavior from a horse. Intervention from a licensed therapist enables treatment plan goals to be met efficiently for an assortment of clients (Kersten & Thomas, 2005a).

Equine Assisted Growth and Learning is a model of Equine Assisted Psychotherapy (EAP). EAP is a powerful and effective therapeutic approach that has an incredible impact on individuals, youth, families, and groups. This type of therapy is useful with a broad variety of diagnoses and it is appropriate for any age and either gender (Tyler, 1994; Max, n.d.). EAP addresses mental health and human development needs including emotional disorders, behavioral issues, attention deficit disorders, substance abuse, eating

disorders, abuse issues, depression, anxiety, relationship problems and communication needs (Kersten & Thomas, 2005a; Kersten & Thomas, 2005b; Roddy, n.d.).

Traditional Therapy and Equine Therapy

According to many therapists EAP effectively minimizes a clients time in treatment due to its ability to bring issues to the surface in a timely and relatively non-threatening manner (Kersten & Thomas, 2005a; Trevelyan, n.d.). A student who may be able to dodge an issue in the therapists office will find it much more difficult to do so when presented with a horse who has mind of its own and is not afraid to expose the students authentic self (Trevelyan, n.d.). Often during an EAP session, students do not realize or acknowledge that therapy is taking place (O'Connor, n.d.; Trevelyan, n.d.).

The opportunity to be out of an office is very effective in quickly reaching student issues (Trevelyan, n.d.). The arena provides a natural setting that is different from the therapists' office in that the students do not feel as closely watched or focused on (Trevelyan, n.d.). EAP is an effective model with many different types of disabilities and becomes even more effective when used in conjunction with other therapies, such as talk therapy or behavior therapy (Addudell, n.d.).

Barbara Lester, a Licensed Clinical Social Worker (LCSW) at a treatment boarding school for adolescents, states in Woodbury Reports (2002) that since she has experienced horse sessions with her clients, going back to talk therapy in an office is hard to imagine. She continues to say that the real patterns emerge in the equine sessions and the client cannot cover up or manipulate. Lester is quoted as saying "I have learned more about a

teen in one horse session, than in a month of individual work" (Woodbury Reports, 2002).

Organizations

Horses are being introduced in a variety of programs worldwide. There are several different names that refer to this work, for instance; Equine Assisted Growth and Learning, Equine Assisted Learning, Equine Facilitated Therapy, or Equine Guided Education, to name a few. Some of the organizations that use horses as a means of achieving human growth are the North American Riding for the handicapped Association (NARHA), Equine Facilitated Mental Health Association (EFMHA) developed by the NARHA, the Equine Guided Education Association (EGEA) and Equine Assisted Growth and Learning Association (EAGALA).

NARHA. The North American Riding for the Handicapped Association (NARHA) is a national non-profit organization that promotes the benefit of horses for individuals with physical, emotional and learning disabilities (NARHA, 2006). NARHA provides equine facilitated activities for people of all ages with various disabilities (2006). This organization promotes equine facilitated therapy and has activity programs in the United States and Canada. There are nearly 700 NARHA centers within the organization (2006).

EFMHA. A special section of NARHA is the Equine Facilitated Mental Health Association (EFMHA)(2006). The EFMHA concentrates primarily on the use of Equine Facilitated Psychotherapy (EFP). According to the EFMHA (2006), the focus of the organization is people with psycho-social issues and mental health needs that result in any significant variation in cognition, mood, judgment, insight, anxiety level, perception,

social skills, communication, behavior, or learning. EFMHA defines their practice of EFP as a form of experiential psychotherapy that includes equines. It may include, but is not limited to, a number of mutually beneficial equine activities such as handling, grooming, longeing, riding, driving, and vaulting (2006).

EGEA. The Equine Guided Education Association (EGEA) approaches Equine Therapy in a unique way. The mission of (EGEA) is to create a unified communication between client and horse. The Equine Guided Education Association (2006) believes in the interaction of the horse as a respected 'guide' in human growth, learning and development . In Equine Guided Education (EGE), the human facilitator is referred to as the "Equine Guided Educator". The facilitator assists growth and learning through experiential exercises with horses. The horse, which is referred to as the "Equine Guide", leads the student and the Equine Guided Educator by revealing inner states of mind and physical energetic states of presence (2006).

EAGALA. There are many programs that utilize horses to improve the lives of their clients. Each organization has made a place for themselves in equine therapy society. However, the focus of this study is on the EAGALA model of EAP.

Equine Assisted Growth and Learning Association (EAGALA) is one of the leading sources of Equine Assisted Psychotherapy (Kersten & Thomas, 2005a). Many individuals and programs use the therapeutic relationship between horse and humans, however, not all practice EAP (Kersten & Thomas, 2005a; Tramutt, 2003). The focus of true EAP is not riding skills or obtaining horsemanship knowledge, but instead, on the client or group and the personal needs and struggles that are brought into the session (Kersten &

Thomas, 2005a; Kersten & Thomas, 2005b; O'Connor, n.d.; Roddy, n.d.; Von Shriltz, n.d).

The Equine Assisted Growth and Learning Association (EAGALA) was founded in 1999 by Lynn Thomas and Greg Kersten (EAGALA, 2006; Kersten & Thomas, 2005a; Kersten & Thomas, 2005b). It is a non-profit organization developed to address the need for resources, education, and professionalism in the field of Equine Assisted Psychotherapy (2006). There are currently over 2,000 members of EAGALA worldwide (Kersten & Thomas, 2005a).

Equine Assisted Growth and Learning Association

EAGALA Definition. Kersten and Thomas (2005a; 2005b) define the EAGALA model of EAP as an emerging field in which horses are used as a tool for emotional growth and learning. EAGALA is dedicated to improving the mental health of individuals, families, and groups by setting the standard of excellence in the Equine Assisted Psychotherapy field (EAGALA, 2006).

The Team. EAGALA promotes that EAP be done with a team. The team consists of at least a licensed mental health professional and a qualified equine specialist. Even in individual sessions the standard is co-facilitation. This provides an environment with increased safety and professionalism for the participants and facilitators (Kersten & Thomas, 2005b).

Solution-oriented Approach. In the EAGALA model the needs of the participants are always considered first (Kersten & Thomas, 2005b). EAGALA's approach is based on the philosophy that the client has the best solutions for themselves. Practitioners in this

model allow the clients to be themselves and search for their own answer, questioning which behaviors are working and why (Kersten & Thomas, 2005a; Kersten & Thomas, 2005b; Roddy, 2002). The therapy team offers assistance through the art of asking questions and providing opportunities for the client to discover and problem solve on (Kersten & Thomas, 2005b).

Ground Activities. EAGALA activities take place entirely on the ground (Thomas, 2006). Ground activities with the horses provide better opportunities for growth and learning (Kersten &Thomas, 2005b). In groundwork, the client has a greater freedom to be themselves since riding would necessitate direct instruction (Kersten &Thomas, 2005b). Client issues surface more readily when grounded, since the client would likely be more mentally occupied on the horses back (Kersten & Thomas, 2005b).

Experiential Approach. Equine Assisted Growth and Learning builds upon the foundation of experiential learning (EAGALA, 2006; Kaleidoscope Learning Circle, 2005; Kersten & Thomas, 2005a; Kersten & Thomas, 2005b). EAP is experiential in nature, which means that participants learn about themselves and others by participating in activities with horses and then discussing, or processing, the feelings, behaviors and patterns (Kersten & Thomas, 2005a), intention, emotions, and energy (Kaleidoscope Learning Circle, 2005). EAP brings people and horses together with the goal of creating a learning opportunity for the human. By creating a learning environment, practitioners seek to interrupt the rules of habit that often stop people from becoming aware of any incongruence between their beliefs, behaviors and values (Kaleidoscope Learning Circle, 2005).

Why Horses?

Horses are effectively used in EAP as metaphors for life, attitudes and behaviors (Kersten & Thomas, 2005a; Kersten & Thomas, 2005b; Trevelyan, n.d.). For example, students may be asked to make a horse go over a jump, the rules include, no touching the horse, cannot use a lead rope or halter, cannot bribe the horse with food (real or imagined), and there is a consequence for every rule broken. When the activity starts students discover how difficult it can be to complete the task. Issues such as anger management, frustrations, control and others can quickly rear up and provide interesting fuel for discussion afterward (Aspen Ranch, n.d.; Trevelyan, n.d.).

The Herd as a Family System. Horses, even domesticated ones instinctually live in a family system, or herd, that has rules. The rules of the herd help humans learn about their beliefs and behaviors (Kaleidoscope Learning Circle, 2005). The herd is important because it means that each horse relies on another for their safety (2005). Like humans, these relationships can be friendly or bullying (2005).

Societal Hierarchy. Horses have a strict hierarchy, defined rolls and societal rules that are very similar to human communities (Kaleidoscope Learning Circle, 2005; Kersten & Thomas, 2005a; Trevelyan, n.d.). The hierarchy or "pecking order" exists within all horse herds. Position in the herd is important, determining who eats first, or eats at all if there are limited resources (Kaleidoscope Learning Circle, 2005). This social order is a changing process as individual horses challenge the horse above them in order (Kaleidoscope Learning Circle, 2005). The pecking order that exists among horses can be

related to the human pecking order. By relating the two, students can learn if they are leaders or followers and the strengths of both positions (Trevelyan, n.d.).

Social Animals. Horses are very much like humans in that they are social (Kersten & Thomas, 2005a). Horses have very clear cut personalities, attitudes and moods (Kersten & Thomas, 2005a). Like humans, horses may be stubborn and defiant, prefer being with peers and like to have fun (Kersten & Thomas, 2005a; Kersten & Thomas, 2005b). Additionally, an approach that seems to work with one, does not necessarily work with another (Kersten & Thomas, 2005a).

Interestingly, most students choose to work with an animal that is almost exactly like them with respect to personality characteristics (Rothe, et al., 2005; Trevelyan, n.d.). Furthermore, pairing a child who exhibits externalizing behavior with a low energy horse can be very effective in adjusting the child's behavior (O'Neill, 2004). Horses provide vast opportunities for metaphorical learning. Since horses are such social creatures, they can provide insight into group dynamics by responding to the apparent hierarchy among the clients (Roddy, 2002).

As social animals, horses understand the essentials of forming and sustaining relationships. As in human relationships, equine relationships require positive, healthy communication (Aspen Ranch, n.d.). Horses respond to the same non-verbal cues of dominance, submission, and cooperation used by humans (Kohanov, 2001).

Non-Judgmental . Horses are non-judgmental. They do not judge what the student is feeling or hold grudges (Aspen Ranch, n.d.; Frewin & Gardiner, 2005; Kaleidoscope Learning Circle, 2005; Kohanov, 2001), they don't have expectations or prejudices.

Horses do not care what people look like and are not influenced by life situation (Aspen Ranch, n.d.; Frewin & Gardiner, 2005; Kaleidoscope Learning Circle, 2005; O'Connor, n.d.). These animals do not come into a relationship with hidden agendas, they are unfamiliar with the valued "rules" humans establish and they do not care about outside measures of success (Kaleidoscope Learning Circle, 2005; O'Connor, n.d.). Horses hold people accountable for who they are in the relationship with them (Aspen Ranch, n.d.; Kaleidoscope Learning Circle, 2005). Horses respond immediately to the students intent and behavior, without assumption or criticism (Frewin & Gardiner, 2005).

Honesty. Horses do not lie (Aspen Ranch, n.d.; Irwin, 2001; Kaleidoscope Learning Circle, 2005; Trevelyan, n.d.). Their honesty forces students to become accountable for their actions. Students who refuse to do so will encounter many difficulties when working with a horse, suffering consequences naturally (Aspen Ranch, n.d; Kaleidoscope Learning Circle, 2005; Trevelyan, n.d.). On the other hand, once students begin to be honest with themselves, admit their mistakes and search for ways to fix them, they are naturally rewarded by the equine partner (Aspen Ranch, n.d).

Mirror. Not only are horses social, they are experts at nonverbal communication and body language, a skill critical to survival (Kaleidoscope Learning Circle, 2005; Kersten & Thomas, 2005a; Kersten & Thomas, 2005b; Max, n.d.; Roddy, 2002). Horses have the ability to mirror exactly what human body language is telling them (EAGALA, 2006; Kaleidoscope Learning Circle, 2005; Kersten & Thomas, 2005a; Kersten & Thomas, 2005b; Max, n.d.; McCann, 2005; O'Neill, 2004; Roddy, 2002). They have the innate ability to point out inconsistencies between the verbal and nonverbal communication

(Addudell, n.d.; Kersten & Thomas, 2005a; Max, n.d.; O'Neill, 2004; Roddy, 2002; Trevelyan, n.d.).

When a person is unable to access, or attempting to hide what is going on in their own body and mind, the horse will express it behaviorally (Kohanov, 2001; Roddy, 2002). Horses are keenly aware of the emotional state of humans, they can sense that any creature conveying the actions of one emotion in order to hide another is up to no good or dangerous (Kohanov, 2001; Von Shriltz, n.d.). During an equine session, a student might blame the horse for being uncooperative, but if they change their behavior, the horse will change in response (Aduddell, n.d.; Woodbury Reports, 2002). By observing how the horse reacts, students can learn about the signs they are sending to others (Roddy, 2002). Through mirroring or reading the emotions of the individual or group the horse can further enhance the learning experience (Kaleidoscope Learning Circle, 2005; Kersten & Thomas, 2005a; Kersten & Thomas, 2005b; Max, n.d.; O'Neill, 2004; Roddy, 2002).

Aid the Therapeutic Process. Horses can aid the therapeutic process in several ways. In a therapy session the horse provides immediate nonverbal feedback to the student about emotional state and relationship building skills (Roddy, 2002; Von Shriltz, n.d.; Woodbury Reports, 2002). This direct feedback is not available when using inanimate objects (Roddy, 2002).

Horses can break down defense barriers and allow students whose difficulty stems from retaining an excess amount of control, to participate more completely (Aduddell, n.d.; Trevelyan, n.d.). Students with low self-esteem can experience a feeling of control when working with a horse. Interactions with a horse may allow the student to experience

an environment where it is safe to express their feelings, feelings they might not express in a traditional therapeutic setting (Aduddell, n.d.; Tyler, 1994;). Horses are also good for those who tend to dissociate. This is due to the fact that while dealing with horse the client must stay focused in the present in order to retain control of the animal and complete the desired task (Aduddell, n.d.).

Many times children do not have the language sophisticated enough to express what they are feeling (Max, n.d.). Interacting with horses in a way that is not uncomfortable enables them to get deeper into the therapeutic process. For instance, if a child learns how to make a horse stop, that can be used as an opportunity to explore how to tell a person to stop doing something too (Max, n.d.)

Size. Horses are large and powerful, which creates a natural opportunity for some to overcome fear and develop confidence (Aspen Ranch, n.d.; Kersten & Thomas, 2005a). The animals size and power are naturally intimidating to many people. The considerable size alone, demands respect (O'Connor, n.d.).

Accomplishing a task involving the horse, in spite of fears, creates self-confidence and provides for wonderful metaphors when dealing with other intimidating and challenging situations in life (Kersten & Thomas, 2005a; Roddy, 2002). Graham (1999) quotes Jim Kerr, director of the horsemanship program at Colorado Boys Ranch, a residential treatment center for adolescents, as saying "When a boy learns to share control with this 1,000 pound animal, he learns to share control with another human."

Predator and Prey. Horses are herbivores, and thus prey to other animals (Kaleidoscope Learning Circle, 2005; Roddy, 2002; Von Shriltz, n.d;). In the wild, death

can be the consequence for a prey animal that does not communicate well or misunderstands the herds message (Kaleidoscope Learning Circle, 2005). Being a target for predators, horses have a well developed programming that includes instinctual hyper-vigilance and the propensity to flee from fear (Frewin & Gardiner, 2005).

Horses have the ability to read intent at a distance and sense fear in a far-off herd member. They act on that feeling without hesitation (Frewin & Gardiner, 2005; Irwin, 2001; Kohanov, 2005; Von Schriltz, n.d.). Kohanov (2001) believes that horses view all things as equal, their attention constantly runs across the landscape. This way it is immediately apparent when something moves out of balance. Prey must be aware of all the world around and be constantly ready for anything (Frewin & Gardiner, 2005; Irwin, 2001; Von Schriltz, n.d.).

Equine Assisted Growth and Learning and Children

Work with a horse requires cooperative, affective and behavioral consistency in students who have learned a habit of thinking one way, feeling otherwise and behaving in a manner that may be unrelated to both. Horses can sense the incongruity and will display confusion until the student is internally consistent (Kohanov, 2001; Tyler, n.d.). Students can relate their experiences with the horses to other people and issues in their lives, begin to examine negative behaviors and start to change it into positive behavior (Trevelyan, n.d.).

During an EAP session the student must manage the horse, complete activities and guide it through and around various obstacles (1994). Most of the protective behavior that the student habitually uses disappears when the focus is on a horse (Tyler, 1994). This

information is observed by the therapy team and processed with the child, so they can develop solutions for needed changes (Von Shriltz, n.d.).

Accountability. Working with horses, permits students to learn to be accountable for their actions and feelings and the way these affect others (Aduddell, n.d.; Aspen Ranch, n.d). Horses do not accept the mixed signals that most students show. They respond best to assertive and congruent body language (Aspen Ranch, n.d.).

Horses are much more adept at confronting the client because of their ability to observe and respond to non-verbal communication (Kersten &Thomas, 2005b). Eventually students learn that communication with the horse is two sided, just as with people, and requires them to pay attention to what their equine partner is saying (Aspen Ranch, n.d.). This includes the opportunity to look at what works and what doesn't, whose needs are being met, problem ownership, taking responsibility (recognizing how actions effect others), basics of respect, learning from others, and challenging beliefs systems (Kersten &Thomas, 2005b).

Building confidence and self esteem. Learning how to be successful with horses gives students the confidence and skills they need to work toward goals in other areas of their lives (Aspen Ranch, n.d.). Students build a great amount of confidence in themselves as they learn how to work through fear, work toward goals and strive for success. Self-esteem may be increased through a new found ability to understand how to ask and receive cooperation from the horse, identify with a powerful live animal, and positively influence another being, (Frewin & Gardiner, 2005; Kersten & Thomas, 2005a; Kersten & Thomas, 2005b; Kohanov, 2001; McCormick & McCormick, 1997; O'Connor, n.d.;

Rothe, et al., 2005). An initial positive experience with horses may be a means toward other experiences which promote feelings of self-confidence and improved ability to relate and communicate with others (Tyler, 1994).

Relationships. Horses can help students build important relationship skills. The equine relationship can form a model for other relationships, teaching the student empathy, patience, socialization and conversational skills (Aspen Ranch, n.d., Tyler, 1994). Students who have been unwilling or able to form healthy and positive relationships in their lives, sometimes find the equine partner to be their first successful relationship (Aspen Ranch, n.d.; Max, n.d.).

Children who have been participating in EAP can take from the experience a variety of benefits. These benefits are a result of the relationship that develops with the horse through care (Rothe, et al., 2005; Tucker, 1997). The child will translate caring for the animal into caring for self (Rothe, et al., 2005).

It Works. Equine therapy has been proven effective for children with special needs (McCann, n.d.). The equine experience can help children who are emotionally at-risk with developing focus, trust, love and communication skills (McCann, 2005; Tyler, 1994). Students with emotional disorders such as, oppositional defiant disorder, get a great deal from work with horses, especially if the student is "counselor wise" (Tyler, 1994).

McCann (n.d.) reports research conducted by Debbie Crews, of Arizona State University's Alternative Intervention Research Clinic (ASU-AIRC). Crews verifies the effectiveness of equine therapy. She has reported that horse programs improve reaction

time and self-esteem in children with attention deficit disorder. The programs also helps reduce depression and anxiety in children with emotional disorders (McCann, n.d.). Given that horses are prey animals, they are highly attuned to physical and internal cues from others in their proximity. This makes them extremely useful when working with emotional issues in children.

Tyler (1994) recalls a time when she worked with a group of students with emotional disorders. Many of the students had severe behavior problems and acting out behavior. Tyler paired these students with horses that were similar in personality. Students who had terrible self-esteem, or felt they had little control over their lives, felt empowered and proud (1994). Several of the students demonstrated affection toward their horses. Days after the equine activities, it was reported that the students who rarely spoke to their peers, spoke enthusiastically about their equine experience (1994)

Students who exhibit emotional disorders are in a sense forced to stay present when with a horse. The participants are able to remain more focused through a bombardment of stimuli. The students senses are stimulated by changing sights, sounds, smells, temperature and the physical feel of the horse (Tyler, 1994).

Frewin, Gardiner (2005), Max, (n.d.) and Tyler (1994) discuss the positive impact of equine assisted work, on children with ADD. The authors reported that these children focused for longer periods of time when grooming or leading the horses. Grooming is an effective activity for students with attention deficit disorders, both for tactile stimulation and to help the child learn to focus (Frewin & Gardiner, 2005; Tyler, 1994).

In a recent research project, Mann and Williams (2002) found that 82% of the youth in Equine Assisted Family Therapy demonstrated clinically significant improvement from an average of 5 sessions. Conduct disorders demonstrated the most clinically significant improvement followed by mood disorders and psychotic disorders (Kersten & Thomas, 2005a; Mann & Williams, 2002). Each of the youth involved failed to make progress in traditional therapy methods (Kersten &Thomas, 2005a; Mann & Williams, 2002).

Summary

The emotional, behavioral, and social challenges demonstrated by children with ED result in significant difficulties to teachers, parents, schools, and peers. These trials cut across disciplinary, instructional, and interpersonal domains (Gresham, 2005; Nelson et al., 2004). A variety of interventions need to be established for children with such a troublesome disorder. It is important to recognize that children do not respond uniformly to intervention efforts (Lane, Gresham, & O'Shaughnessy, 2002). Equine Assisted Growth and Learning is an experiential type of therapy that uses horses to aid in emotional growth. In an time when immediate gratification is the standard, horses require people to be engaged in physical and mental work to be successful, a valuable characteristic in all aspects of life (Kersten & Thomas, 2005a).

CHAPTER III

Methodology

Introduction

Equine assisted psychotherapy is an emerging field in which horses are used as a tool to facilitate emotional growth and learning (Kersten & Thomas, 2005a; Kersten & Thomas, 2005b). Equine Assisted Growth and Learning is a model of EAP. Research in the area of EAP is lacking, especially in its application to students with emotional disorders. This study will address the effects of the EAGALA model of EAP on students diagnosed with emotional disorders.

Study Design

Experimental research is the only type of research that can test hypotheses to establish cause and effect relationships (Gay, Mills & Airasian, 2003). In experimental research at least one independent variable is manipulated. The researcher controls other relevant variables and observes the effect on one or more dependant variables (2003).

The research design for this study is pre-experimental, using a one group pre-test/post-test design. The one group pre-test/post-test design involves a single group that is pre-tested, exposed to treatment and post-tested (Gay, Mills & Airasian, 2003). According to Gay, Mills and Airasian (2003), the success of the treatment is determined by comparing the pre-test and post-test scores.

Participant Selection

A random group of seven Therapeutic Day Schools were contacted for participation in this study. The schools were called to assess interest and availability in participation.

Finally, it was narrowed down to two programs. The researcher called and spoke to the clinical directors of each program chosen. The program that was selected to participate was chosen because of the number of students available, and the common diagnoses that made up the population.

Participants

Ten students both male and female participated in the program. The students were entering the fifth and sixth grades. Each student had been diagnosed as having an emotional disorder. The students came to the equine facility each week to participate in therapeutic activities with the horses.

The classroom teacher from the chosen school agreed to participate in order to complete the pre- and post-test surveys. A pre-test was given to the teacher prior to the first visit to the facility, and a post-test was distributed after the fifth and final session. There were four staff members that accompanied the student group to the site for supervisory reasons.

Instrument Development

A review of literature, other research studies and the Illinois Learning Standards were used to identify difficulties students with emotional disorders have in a classroom environment. Once information had been gathered, a survey was developed by the researcher. In an effort to ensure relevance of the survey to the research goals, a peer committee reviewed and critiqued the survey. Changes were made based on their suggestions.

The first part of the pre-test consisted of demographic information concerning the students that were participating in the program. This information was completed by the school staff. Mildred Patten (2001) suggests collecting demographic information so that researchers can get a mental picture of the respondents.

Student demographic data was collected in order to get a clearer picture of the types of students being served during the intervention process. The information served as a instrument to aid in the planning of equine activities for the participants. The demographic information also helped determine limitations in this study.

Student information was kept completely anonymous. The only identifying information dealing with individual students was an identification number one through ten. The school staff listed a student name next to a number in order identify the participant for themselves and correctly complete the demographic and pre/post-test surveys for that student. School staff were the only people who had access to this information. The researcher saw only the identification number one through ten on the survey.

Questions regarding gender, age, grade and racial/ethnic background, were identified on the student demographic. The educational and psychological diagnoses for each student was also disclosed in the demographic information, but again, was kept completely anonymous. The specific student identity was not revealed with his or her diagnosis. Finally, it was asked whether or not the student was currently taking any medication for the diagnosis and if it was consistently distributed.

A symptom survey was created by the researcher and aptly named "Student Symptom Checklist." Following the demographic information, the Student Symptom Checklist was ready to complete as a pre-test measure. This survey was comprised of a Likert type scale containing questions dealing with typical behaviors of students diagnosed with emotional disorders. The classroom teacher was asked whether individual students participated in each listed behavior. The teacher chose from strongly agree, agree, undecided, disagree or strongly disagree for each symptom. One pre-test survey was completed for each student.

The Student Symptom Checklist was also used as the post-test measure. One post-test survey was completed for each student. Once more, the identifying information was limited to the numbers one through ten.

Procedures

When finalizing the selection of a participating school, a short proposal was sent by facsimile to the two remaining choices. The proposal contained a detailed description of the research study including; procedure, purpose, and research questions. Information on confidentially was also covered in the proposal.

Once the participating school was confirmed and a start date was set, a folder of information was personally delivered to the cooperating school. The folder contained one blank class list, which would be seen only by school staff, for use in determining the identification number for the students. The Student Symptom Checklist and demographic questionnaire were photocopied and placed in the folder for the contributing staff. Information regarding confidentiality was discussed more completely at this time.

In order to gain pre-test data, directions were given for the classroom teacher to complete the Student Symptom Checklist prior to the start date. She was asked to bring it to the first appointment and turn it in to the researcher. The demographic information was also returned at this time.

Ten students participated in five EAP sessions. Each session was two hours in length. The sessions began with observation of the horses and group discussion. Students were involved in activities with the horses including, but not limited to, grooming, leading and cooperative undertakings. The group concluded with a discussion about the activity and a short "homework assignment" for the week. Assignments dealt with and allowed the students to reflect on the accomplishments that were achieved, feelings that came up and relationships with the horses.

After the final EAP session, a Student Symptom Checklist was distributed to the teacher. This checklist was identical to the pre-test. The teacher was given directions on how to complete the checklist and a deadline for completion was set. The researcher personally retrieved the documents on the completion date.

Data Analysis

Inferential statistics deal with inferences (Gay, Mills & Airasian, 2003). Conclusions about populations based on the results of samples. Inferential statistics allow researchers to generalize to a populace based on information obtained from a limited number of research participants (2003).

This study conducted a pre-test and post-test. The information from the pre-test was gathered and compared to the post-test. The examiner was looking for improvement in

symptoms common in students diagnosed with emotional disorders. The outcome will be discussed in the results chapter of this research study.

Following the collection of data, the researcher compared the outcome. A *t*-Test for non-independent samples was used to inspect the possibility of statistical significance. This type of test improves the ability to determine whether, at a selected probability level, a significant difference exists between the means of two matched samples (Gay, Mills & Airasian, 2003). The *t*-Test for non-independent samples is used to compare a single groups performance on a pre- and post-test measure (2003).

Summary

A pre-experimental study was conducted using a one group pre-test/post-test design. The Student Symptom Checklist was used as a pre-test to determine symptom severity. The Symptom Improvement Checklist was used as a post-test to determine if improvement resulted over the five weeks of intervention. The surveys included identical questions using a Likert type scale. The classroom teacher was asked to complete a checklist for each student. All were returned to the researcher.

CHAPTER IV

Results

Introduction

The purpose of this chapter is to present the results of the study. An inferential quantitative research study was conducted in order to gain information regarding the effectiveness of Equine Assisted Growth and Learning for students diagnosed with emotional disorders. A *t*-test for non-independent samples was used to determine statistical significance.

The questions of the study assess the students' behavior in the special education classroom environment. The questions were answered using results of a pre and post-test survey. The research questions asked: (a) Does Equine Assisted Growth and Learning help students to identify and manage behavior? (b) Does Equine Assisted Growth and Learning help students use learned communication and social skills to interact with others?

The data was gathered using a researcher-prepared survey. Pre-tests and post-tests were filled out for each of the ten students. The pre-tests were completed by the classroom teacher prior to equine involvement, and post-tests were completed after five weekly sessions. Ten pre-tests and ten post-tests were distributed and returned.

Demographic Information

A questionnaire concerning demographic information on the students was presented to the classroom teacher to complete prior to the initial equine session. This information was needed to assess the students who were participating in the program, aid in decision

making concerning activities the students would be asked to complete, and to determine limitations of the study. Demographic information was kept completely anonymous to the researcher in order to honor the confidentiality of the students.

Table 1

Demographic Information for Participants

n	Gender	Age	Gr.	Educ. Diagnosis	Psychological Diagnosis	Med.
1	M	11	6	ED/OHI	ADD/H	Y
2	F	12	6	ED/OHI	Depressive Disorder, ADD/H	Y
3	F	12	6	ED	N/A	Y
4	F	11	6	ED	Major Depression with Psychosis	Y
5	M	12	6	ED/LD	Major Depression, PTSD	Y
6	M	12	6	ED/OHI	ADD/H, ODD	Y
7	F	11	6	ED	Depression with Psychotic Features, Generalized Anxiety Disorder, PTSD	Y
8	F	12	6	ED	Major Depressive Disorder, PTSD-Chronic	Y
9	M	10	5	ED	Depression with Psychotic Features	Y
10	F	10	5	ED	N/A	Y

Note. ED=Emotional Disorder; OHI= Other Health Impairment

All participants were diagnosed as having an emotional disorder (ED). Six female and four male candidates made up the group. The age of the students ranged from ten to

twelve, and they were entering either the fifth or sixth grade. The results of the demographic information can be seen in Table 1.

The Effectiveness of Equine Assisted Growth and Learning

Ten students participated in EAGAL. The two-hour sessions met over a five-week period. Prior to the initial session, the classroom teacher completed a survey rating each student's behavior. After the final session, the teacher completed another survey reporting on the same behaviors.

The Student Symptom Checklist was distributed to the classroom teacher of the participating students. The surveys asked the teacher to rate each student's behavior individually. The assessment scale was labeled strongly agree, agree, undecided, disagree, strongly disagree. Each of the response choices was given a value one through five.

The questions were separated by application in relation to research question one or two. Five questions were applied to the first research question and five to the second research question. A total of 25 points on each research question could be accumulated for a student exhibiting no behaviors at all.

Research Question One

Research question one asks: Does Equine Assisted Growth and Learning help students identify and manage behavior? Tables two through four deal with question one. The tables below attempt to provide proof of statistical significance.

Table 2 marks individual progress according to identifying and managing behavior. The table shows the student identification number, points given on the pre-test, points

earned on the post-test, the point difference and the percent of difference between the two. Improvement was noted for nine out of the ten students in regards to question one.

Table 2

Identification and management of Behavior: Individual Student Progress

Student #	Pre-test	Post-test	Difference	Percent of Progress
1	15/25	21/25	+6	24%
2	14/25	21/25	+7	28%
3	14/25	19/25	+5	20%
4	17/25	17/25	0	0
5	11/25	14/25	+3	12%
6	12/25	15/25	+3	12%
7	18/25	21/25	+3	12%
8	9/25	19/25	+10	40%
9	15/25	19/25	+4	16%
10	9/25	14/25	+5	20%

Note. (1) Strongly Agree; (5) Strongly Disagree.

Table 3 shows the individual survey items that apply to research question one. The questions were used to determine severity of behaviors shown in the pre-test, at the post-test stage and the percentage of overall progress for the group. A five-point scale was used to give a value to the questions.

The scores for the ten participants on each of the five items were added up and divided by the number of participants (n) to determine the average pre-test and post-test values. The percentage of progress was established using the difference between the pre- and post-test average divided by the pre-test average.

Table 3

Overall Progress on Individual Survey Questions dealing with Research Question 1

Survey Item	Average Pre-test	Average Post-test	Percent of Progress
1. Has tantrums.	2.2	3.4	54%
2. Responds appropriately when corrected.	2.9	2.3	-21%
3. Runs or climbs at inappropriate times.	3.7	4.2	14%
4. Does not seem to listen when spoken to.	2.2	3.5	59%
5. Blurts out answers.	2.2	3.1	64%

Note. (1) Strongly Agree; (5) Strongly Disagree. Progress values rounded to full percent.

Table 4 shows the overall statistical significance of the student's progress regarding identification and management of behavior in a special education setting. The distribution of t (9) =5.35, $p \leq .001$ was used to determine the statistical significance. The difference shown is statistically significant.

Table 4

Statistical Significance of Improvement for Research Question1

	M	*SD*	*df*	*t*	Significance
Pre-test	13.4	3.10	9	5.35	≤.001
Post-test	18	2.83			

Research Question 2

Research question two asks: Does EAGAL help student's use learned communication and social skills to interact with others? Tables five through seven deal with this question. Tables five through seven are identical to the set up of tables two through four.

Table 5 shows individual progress according to each student's ability to use appropriate communication and social skills when interacting with others. The table records the student's identification number, points given on the pre-test, points earned on the post-test, the point difference and the percent of difference between the two. There was improvement noted for eight of the ten students in regard to question two.

Table 5

Appropriate interaction with others: Individual Student Progress.

Student #	Pre-test	Post-test	Difference	Percent of Progress
1	14/25	14/25	0	0
2	16/25	19/25	+3	12%
3	20/25	20/25	0	0
4	18/25	21/25	+3	12%
5	12/25	18/25	+6	24%
6	15/25	17/25	+2	8%
7	13/25	18/25	+5	20%
8	8/25	18/25	+10	40%
9	16/25	20/25	+4	16%
10	10/25	16/25	+6	24%

Table 6 shows the individual survey items that apply to research question two. The questions were used to determine intensity of inappropriate interaction with others, shown in the pre-test, at the post-test stage and the percentage of overall progress for the group. As mentioned previously, a five-point scale was used to give a value to the questions. Identical to table 3, to determine the average pre- and post-test values, scores for the ten students on each of the five items were added up, and divided by the number (*n*) of participants. The percentage of progress was established using the difference between the pre- and post-test average, divided by the pre-test average.

Table 6

Overall Progress on Individual Survey Questions dealing with Research Question 2

Survey Item	Average Pre-test Value	Average Post-test Value	Percent of Progress
1. Physically aggressive with others.	3.6	3.9	8%
2. Shy, timid and/or unassertive.	2.9	3.4	17%
3. Has difficulty waiting his/her turn.	2.6	3.4	31%
4. Compromises when appropriate.	2.9	3.5	21%
5. Responds appropriately to boundaries.	2.8	3.7	32%

Note. (1) Strongly Agree; (5) Strongly Disagree. Progress values rounded to full percent.

Table 7 shows the overall statistical significance of student progress regarding the use of appropriate communication and social skills when interacting with others in a special education setting. Duplicating table 4, the distribution of $t\ (9) = 5.35$, $p \leq .001$, was used to determine statistical significance. The difference discovered is statistically significant.

Table 7

Statistical Significance of Improvement for Research Question 2

	M	*SD*	*df*	*t*	Significance
Pre-test	14.2	3.61	9	4.06	≤.001
Post-test	18.1	2.08			

Summary

The purpose of this study was to determine the effectiveness of Equine Assisted Growth and Learning with students diagnosed as having Emotional Disorders. Ten students participated in Equine Assisted Growth and Learning activities over a five week period of time. They were evaluated by their classroom teacher both pre- and post-intervention in an attempt to discover progress. An inferential quantitative research study was conducted for this project. Data was gathered from the teacher regarding the students demographic and behavior information. A *t*-Test for non-independent samples was performed to determine statistical significance. The overall result was that Equine Assisted Growth and Learning activities made a statistically significant impact on the behavior of the participants in a special education setting.

CHAPTER V

Introduction

Horses, by their mere presence, put people therapeutically in touch with their own inner strength (Rothe, et al., 2005). Data was accumulated on the efficacy of using horses in therapy with special education students. In this study, the classroom teacher was asked to complete a survey that posed questions concerning (a) student ability to manage behavior and (b) student ability to communicate and interact appropriately.

A Likert scale was used to rate the students individually. Response to the survey was taken before the initial equine session and after the final meeting. The data was compared to assess if EAGAL was an effective intervention.

Discussion

A review of the relevant literature dealing with emotional disorders indicates that ED characteristically presents behavioral, achievement and social difficulties that interfere with quality of life (Nelson, et al., 2004; Kauffman, 2001). Students with a diagnosis of ED will require a variety of intensive mediation to target severe and resistant behavior (Gresham, 2005; Lane, Gresham, & O'Shaughnessy, 2002). Bullock and Gable (2006) stated that when planning intervention, it is important to keep in mind that the ultimate goal is to give the students tools that will enable them to regulate their own behavior.

Equine Assisted Growth and Learning (EAGAL) is an experiential approach to well being for a variety of individuals, groups and diagnoses. EAGAL addresses mental health and human development needs for those who participate (Kersten & Thomas, 2005a;

Kersten & Thomas, 2005b; Roddy, n.d.). According to literature, this up-and-coming therapeutic modality is reported to be useful for students with ED.

The purpose of this study was to examine the effectiveness of EAGAL as an intervention tool for emotional disorders. Research looked to assess this model of EAP in improving the management of behavior, communication and social skills with the ED population. The results gathered, proved positive.

Equine Assisted Growth and Learning improved students' ability to manage behavior in the special education setting. Each student's behavior was pre- and post-tested in order to determine efficacy. According to this research, students improved individually in the area of behavior management by an average of 18.4%. Overall progress for the group, with respect to behavior management, was an average of 34%. The progress was statistically significant.

EAGAL proves to help students gain skills for appropriate interaction with others. The individual pre- and post-tests determined that students developed individually in the area of communication and social skills by an average of 16%. Overall progress for the group, regarding communication and social skills, showed an average improvement of 22%. Growth in this area was deemed statistically significant.

Implications and Recommendations

Emotional disorders present a variety of behavioral, achievement and social difficulties that interfere with a student's education. The implementation of an intervention such as EAGAL has been successful for students diagnosed with ED. This study has discovered that students who participated in EAGAL made progress. Students

in this particular study were able to increase appropriate response to boundaries by peers and staff. Improvements were noted in the decrease of tantrums in the classroom and growth shown in taking turns. The students reduced the propensity to blurt-out answers and increased their ability to listen when spoken to. Finally, assertiveness improved and aggression declined.

The behaviors that are mentioned above have a major effect on the learning environment. Using an intervention that improves disruptive behaviors will heighten the structure and cohesiveness in the classroom. Learning will be more profitable for all involved.

Further research is necessary in the area of Equine Assisted Growth and Learning. Particularly regarding its ability to provide positive change in students with special education needs. EAP is a growing field and is steadily gaining popularity. However, much of the research available consists of quantitative and anecdotal evidence. More data should be gathered to further prove the effectiveness of this intervention. The students who participated in this study were just a sampling of the population that EAGAL will be able to assist.

Summary

As equine assisted therapies become more popular, it will be more important to have high-quality research available. This study incorporated a group of ten students diagnosed with ED. Progress was documented in the behavior of the students in only five sessions. The results of this study indicate that EAGAL is a useful intervention model for students diagnosed with ED.

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Appendix A

Governors State University
Institutional Review Board

Project Exemption Review Form

Please submit completed forms to the Office of the Provost.

"PROJECT DIRECTOR" refers to the GSU faculty or staff member who is coordinating the research project or thesis.

PROJECT DIRECTOR(S): Dr. Maribeth Kasik and Phil Boudreau

STUDENT RESEARCHER: (if appropriate) Aimee Tetreault

COLLEGE: Education DIVISION/DEPT. Education/Special Education

PROJECT TITLE: (or thesis) Horses that Heal: The Effectiveness of Equine Assisted Growth and Learning on the Behavior of Students Diagnosed with Emotional Disorder.

PROPOSED PROJECT DATES: May 11, 2006 through August 23rd, 2006

FUNDING AGENCY OR RESEARCH SPONSOR:

FUNDING AGENCY IDENTIFICATION NUMBER:

PROJECT DIRECTOR'S MAILING ADDRESS: College of Education
GSU University Park, IL

PROJECT DIRECTOR'S TELEPHONE NUMBER: 4364

E-MAIL ADDRESSES OF PROJECT DIRECTOR(S) AND ALL STUDENT RESEARCHERS: m-kasik@govst.edu , pbj813@comcast.net , Raimbo20@aol.com

I. ABSTRACT: (150 WORDS OR LESS)

This research project examines how Equine Assisted Growth and Learning (EAGAL) influences the classroom behavior of elementary school students diagnosed with ED in a special education setting. Using the Illinois Learning Standards for Social Emotional Learning (Stage D), Goals Standards and Objectives, two goals were used to form objectives for this Study. They were carried out using EAGAL as the intervention method. A group of 10 students were asked to participate in this study to determine if EAGAL is an effective intervention for students diagnosed with ED.

II. PROTOCOL: (Describe procedures to which humans will be subjected. Use additional pages if necessary)

Prior to beginning the equine sessions, the classroom teacher will be asked to fill out an anonymous demographic sheet for each student. A short survey about each participant's behavior in the school setting will be completed by the teacher prior to beginning of the intervention.

This project will provide the students with 5 weeks of Equine Assisted Growth and Learning. Each session will be 2 hours in length. The session will start with a group discussion about the goals of the activity. Students will participate in activities with the horses including, but not limited to, grooming time and games.

The focus of Equine Assisted Growth and Learning is not riding or horsemanship. The focus involves setting up ground activities involving the horses. The group will end with a discussion about the activity and a short "homework" assignment for the week. Assignments will allow the student to reflect on the session, the accomplishments that were achieved, feelings that came up, relationships with the horses, etc.

At the end of the 5 weeks, the staff member will be asked to fill out the same survey identifying student behavior. The data will be collected and compared. Information will be gathered into a written research report.

All activities and surveys will be completely confidential. No personal or identifying information will be used. The school will not be mentioned by name.

III. BENEFITS and RISKS: (Describe the benefits and risks to the individual and/or humankind.)

The benefits of using Equine Assisted Growth and Learning is in setting up activities with the horse, which will require the student or group to apply certain skills. Non verbal communication, assertiveness, creative thinking, problem solving, leadership, taking responsibility, teamwork, relationships, confidence and attitude are several examples of the tools utilized and developed. Activities with horses can be highly therapeutic, educational

The risks in equine activities are rare but include (a) The propensity of horses to behave in dangerous ways that may result in injury to the participant, and (b) the inability to predict a horses reaction to sounds, movements, objects, persons, or animals. The risks are considered to be offset by the benefits that may be received by working with horses.

IV. CONFIDENTIALITY OF DATA-- (Describe the methods to be used to ensure the confidentiality of data obtained, including plans for final disposition or destruction, debriefing procedures, etc.)

The project director believes that the proposed project is exempt from full review because:

a. It does not include participants from any of the following populations:
    i. Minors
    ii. Pregnant women

iii. Fetuses
iv. Prisoners
v. Persons with mental disabilities

b. at least one of the following applies (check all that apply):
(Note: Research activities in which the only involvement of human subjects will be one or more of the following categories are exempt from full committee review unless the research is covered by other subparts.)

__x__ Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as:

research on regular and special education instructional strategies, or research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

__x__ Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement); survey procedures; interview procedures or observation of public behavior; unless:

information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

_____ Research involving the use of the educational tests (cognitive, diagnostic, aptitude, achievement); survey procedures; interview procedures or observation of public behavior that is not exempt under paragraph (B.) of this section if:

the human subjects are elected or appointed public officials or candidates for public office, or statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

_____ Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

_____ Research and demonstration projects which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate or otherwise examine:
public benefit or service programs; procedures for obtaining benefits or services under those programs; possible changes in or alternatives to those programs or procedures; or possible changes in methods or levels of payment for benefits or services under those programs.

_____ Taste and food quality evaluation and consumer acceptance studies,

if wholesome foods without additives are consumed or if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food and Safety and Inspection Service of the U.S. Department of Agriculture.

V. CONSENT: (Attach a copy of the CONSENT FORM(S) to be signed by the subject and/or any STATEMENT(S) to be read to the subject, or INFORMATIONAL LETTER to be directed to the subject.)

I certify that the protocol and method of obtaining informed consent as approved by the Institutional Review Board will be followed during the period covered by this research project.

Any future changes will be submitted for IRB review and approval prior to implementation.

Project Director (GSU Faculty Member) Dr. Maribeth Kasik Date _____

Student Researcher Aimee Tetreault Date August 23, 2006

VI. INSTITUTIONAL ENDORSEMENTS
Your endorsement is requested to assure the Institutional Review Board that your office is aware of the existence and status of this research activity.

Division/Department Chair _____ Date _____

Dean _____ Date _____

Please return to: Office of the Provost: Institutional Review Board
For further details, refer to text of the Code of Federal Regulations, Chapter 45, Part 46, Subparts A-D in the University Library's Federal Document collection.

irb-exempt revised March 2005

Appendix B

Reins of Change, Inc.
Liability Release Form

Please Read Carefully Before Signing

I understand that under the Equine Activity Liability Act, each participant who engages in an equine (horse) activity expressly assumes the risks of engaging in and legal responsibility for injury, loss, or damage to person or property resulting from the risk of equine activities.

This release shall give notice to the participant, parent or guardian the risks of engaging in equine activities, including (I) the propensity of equine to behave in dangerous ways that may result in injury to the participant, (II) the inability to predict an equine's reaction to sounds, movements, objects, persons, or animals, and (III) the hazards of surface or subsurface conditions. A release shall remain valid until expressly revoked in writing by a participant, or, if a minor, the parent or guardian.

I consider these risks to be offset by the benefits that may be received by visiting/working with the horses at Reins of Change, Inc. These benefits may include, but are not limited to higher self-esteem, confidence, personal awareness, character development, leadership skills, problem solving skills, social skills, and respect. Activities with horses can be highly therapeutic, educational and FUN!

I understand that participants must consult with Amy Blossom about any prescription drugs being used or any health or physical condition that may need to be considered at least 24 hours prior to sessions. For safety reasons a participant may not actively participate in sessions if they are pregnant, under the influence of illegal drugs or alcohol.

Participants must wear long pants, closed toe and heel, hard soled shoes, remove any dangling jewelry, or any other loose items that may put the participant at risk. Please dress in layers for your comfort. There is an indoor facility, in case of inclement weather. Winter: please wear a coat, hat and gloves. Summer: please wear sunscreen and insect repellant as needed for outside activities and bring a bottle of water. An office area with restrooms is available for use by our clients.

I understand that 24 hour notice of cancellation is required, or I will need to pay for my session in it's entirety. I also understand that if I am late, the session must end as scheduled. I must contact Amy at Reins of Change directly by telephone to notify of cancellation, lateness or any changes of schedule at 847.464.5177. **Initial here**____

I hereby release Amy Blossom Lomas, David E. Lomas, Reins of Change, Inc., Horses Healing Hearts and the therapists, counselors, employees, independent contractors and volunteers who work with them from any responsibility or liability for injury, loss, damage to person or property, including malpractice, resulting from equine activities and/or visiting our facility.

I have read and understand the provided information and agree with the terms in their entirety.

Participant (print)_____(signature)_____
Parent(s) or Guardian(s) (print)_____(signature)_____
Parent(s) or Guardian(s) (print)_____(signature)_____
Witness (print)_____(signature)_____
Date_____

Appendix C ID#:_____

Student Demographic Information:

Directions: This form is about the individual student. You will have one for **each** child participating in the program. Please take the time to answer the following questions as completely as possible.

Gender: _____Male _____Female

Age: _____ **Grade student just completed:** _____

Which of the following best describes the students racial or ethnic background:

_____African American _____Caucasian _____Asian American

_____Hispanic/Latino Other:_____

Diagnosis: (please fill in the students diagnosis as completely as possible)

- Educational:_____
- Psychological: _____

Medication for diagnosis:

_____Yes _____No

- If so, was the medication recommendation accepted by parent/guardian and administered?

_____Yes _____No

- Is it administered as prescribed? (i.e. no "weekends off", or frequently forgotten)

_____Yes _____No _____Unsure

Appendix D

Student Symptom Checklist

Directions: Please answer all of the following questions to the best of your knowledge. Use 1 form for *each* child participating in the program. The ID number in the top right corner will be the identifier, please put the number that corresponds to the child's first name (#1-10) from the "class list" page.

Symptom Checklist	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. Has tantrums					
2. Responds appropriately when corrected					
3. Runs about or climbs in situations in which it is inappropriate					
4. Avoids, dislikes or is reluctant to engage in activities that require sustained mental effort					
5. Gives up easily					
6. Is physically aggressive with others (throws, hits, bites)					
7. Shy, timid and/or unassertive					
8. Has difficulty sustaining attention in tasks or play activities					
9. Cries easily					
10. Exhibits sad affect, depression and feelings of worthlessness that interfere with normal peer and classroom activities					
11. Does not seem to listen when spoken to directly					
12. Has difficulty waiting his/her turn					
13. Has to be the "winner" in peer situations/activities					
14. Bullies other students					
15. Interrupts or intrudes on others (i.e. butting in to conversations or games)					
16. Blurting out answers before questions are completed					
17. Gives in or compromises with peers when appropriate					
18. Gives in to appease others					
19. Prefers to play or spend time alone					
20. Responds appropriately to boundaries set by others					