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THERAPEUTIC HORSEMANSHIP AND CHILDREN ADOPTED FROM FOSTER CARE: A CASE STUDY ANALYSIS USING MIXED METHODS

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THERAPEUTIC HORSEMANSHIP AND CHILDREN ADOPTED FROM FOSTER CARE: A CASE STUDY ANALYSIS USING MIXED METHODS

by

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Dissertation

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Dedication

This dissertation is dedicated to my family for their enduring love and support throughout this lifelong process. This project would not exist without their belief in me and their understanding of the power of horses to impact a person's life.

This project is also dedicated to all of the children and families involved in the child welfare system with whom I have had the privilege of learning from.

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THERAPEUTIC HORSEMANSHIP AND CHILDREN

ADOPTED FROM FOSTER CARE:

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The purpose of this study was to explore the potential benefits of a therapeutic horsemanship program for children adopted from foster care and their adoptive mothers. Standardized measures, open-ended interviews and surveys were administered to determine effects on external child behavior, child self-esteem and parenting stress. The Child Behavior Checklist was administered to measure behavioral challenges in the children in this sample. There were no statistically significant changes on any of the CBCL scales. Qualitative data from the mothers, Instructors and researcher observations show some affect on behavior. The Culture Free Self-Esteem Inventory-3 was administered to measure self-esteem of the nine children in the sample. The decrease on the Global Self-Esteem Quotient of the CFSEI-3 was statistically significant using. Of

the nine children, only three of them scored in the clinical range at pre-test. Of these three, two moved into the normal range and the third improved her score to be very close to the normal range. Qualitative data from the mothers, Instructors and researcher observations support this finding. The Total Stress score of the Parenting Stress Index – Short Form for the mothers in the sample did not show a statistically significant decrease. Six of the nine mothers' pre-test and post-test scores were in the clinical range and only three had decreased post-test scores. The Qualitative data obtained through interviews, surveys and observations did not support a direct impact of the program on stress levels but rather an impact on level of support. Many mothers reported that they liked spending time with the other mothers to share resources and discuss their children. The data collected in this study does not provide sufficient evidence to make any causal statements about therapeutic horsemanship programs and children adopted from foster care. It does, however, provide support for the need for future research. The findings from this study have implications for meeting the needs of a variety of children adopted from foster and their adoptive parents.

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CHAPTER ONE

INTRODUCTION

Significance of the Study

The child welfare system in the United States is currently dealing with an overwhelming number of children who, due to abuse and neglect, are unlikely to return to their biological families. In searching for a solution to this enormous problem, child welfare has recently shifted its' focus to adoption. In 2005, there were 118,000 children waiting to be adopted with a mean age of 8.5 and mean time in foster care of 44 months (AFCARS, 2005). That same year, 53,000 children were adopted with a mean age of 7.0 years. Children who have been in foster care for an average of 44 months, more than 3.5 years, have endured instability and multiple placements for what frequently amounts to more than half of their lives. The number of children who have been adopted annually has not significantly changed since the implementation of the Adoption and Safe Families Act of 1997.

Recently, efforts have increased to recruit families to adopt the 118,000 children waiting for adoptive placement in the child welfare system. National and local efforts are beginning to make an impact on adoption. In 2005, 53,000 children were adopted from the foster care system as compared to 51,000 in 2000 and 36,000 in 1998 (AFCARS). The challenges and problems that the children currently waiting for adoption exhibit are often very difficult for parents to manage, thereby making these children difficult to place

for adoption. While there have been substantial improvements in some areas, there is tremendous work to be done.

Adoptions from foster care are generally seen as successful when looking at the low disruption/dissolution rates (George, Howard & Yu, 1996). There is a growing body of evidence, however, that these adoptions present unusually difficult challenges (Barth & Miller, 2000). There are a disproportionately high number of children with externalizing problems such as ADD, ADHD, Oppositional Defiant Disorder, Conduct Disorder and antisocial behaviors (Deutsch et al., 1982; Brodzinsky, Schecter, Braff, & Singer, 1984; Barth & Miller, 2000).

As efforts to recruit potential adoptive families increase, the need for services to assist these families during and after the adoption of a child with special needs has become overwhelmingly apparent. Research studies looking at families who have adopted children from foster care continuously report the need for post-adoption services for these families. On going services appropriate for children with special needs and the families who adopt them are difficult for families to find and are often inadequate to meet the needs of their children or too costly for families to afford. Therapeutic Horsemanship is emerging as a potential therapeutic option for these children and their adoptive families. Therapeutic Horsemanship programs are equipped to deal with emotional and behavioral challenges of children are available to be supportive of adoptive families.

Statement of the Problem

Children waiting for adoption, as well as children with special needs who are adopted, typically have a range of needs including emotional, behavioral, physical, psychological, or mental (CWLA, 2000). Studies show that behaviors exhibited by children in foster care include aggression, manipulative behaviors, withdrawal, and depression (Benedict & White, 1991). While there is no national data documenting the emotional and behavioral challenges of children in foster care or children adopted from foster care, it is speculated to be significant due to the abuse and neglect that many children experience before entering into foster care. Multiple placement changes while in foster care makes any attempt to overcome these challenges difficult for the children and the adoptive families. While most adoptions from foster care are successful in terms of not disrupting or dissolving, many studies have cited the remarkable level of difficulty in parenting these children (Barth & Miller, 2000).

Treatments and appropriate activities for these children and their families are difficult to find. Adoptive parents frequently report that therapeutic professionals are not trained in the issues of foster care and adoption and other activities that are often available in the community for children are not able to manage the emotional and behavioral challenges of these children or designed to create positive and successful experiences for these them**.**

This study focused on adopted children with emotional and behavioral challenges and a therapeutic horsemanship program designed to meet the needs of children adopted from foster care and their adoptive mothers. The are over eight hundred accredited

therapeutic horsemanship programs in North America (NARHA, 2007) but few programs have traditionally offered their services to children and families involved with the child welfare system. The program in this study was based on the standard horsemanship program at Equest Therapeutic Horsemanship in Wyle, Texas. Equest is one of the leading therapeutic horsemanship programs in North America. They train therapeutic riding instructors and offer therapeutic horsemanship services, weekly, to over one hundred-fifty individuals with a variety of physical, mental, cognitive and emotional challenges. The standard program used at Equest was adjusted to meet the needs of adoptive families for this study.

Special Needs Adoption

Child self-esteem

Self-esteem is a critical component of healthy child development. Self-esteem is relational and children with healthy self-esteem feel good about themselves without have to degrade others while understanding the impact that their behavior has on others (Direnfeld, 2003). With good self-esteem, children are able to feel positive about themselves and their relationship with those around them. Competency is a primary ingredient to developing healthy self-esteem and is a core component of the Therapeutic Horsemanship Program designed for this project. Children adopted from foster care are dealing with a variety of challenges that may negatively affect their self-esteem levels. Silverstein and Roszia (1999) have developed the core issues in adoption that all children and families involved with adoption experience. These include loss, grief, rejection and identity. Resolving these issues is not a linear process, but rather a lifetime cyclical

process. Self-esteem is an important concept for children adopted from foster as they work through and between these core issues over a lifetime (Smit, 2002). Improved levels of self-esteem may allow children to more readily move between these issues thereby benefiting the child as she develops. High levels of self-esteem and strong feelings of self-confidence are needed for children to work through these difficult issues while maintaining their identity.

Parenting Stress in Special Needs Adoption

The difficulties associated with raising children with special needs are generally understood to be very stressful on the adoptive parents and adopted children. The literature on non-adoptive families with children with special needs shows relatively successful outcomes despite higher levels of stress for parents raising children with emotional challenges (Kysela, McDonald, Reddon, & Gobeil-Dwyer, 1988; Fuller & Rankin, 1994). When considering children adopted form the foster care system, the issues of increased parenting stress must be considered due to the frequency of emotional problems related to the child's reason for being in foster care and any related traumas while being in foster care. Compounding these challenges may be multiple issues related to adoption that the parents and families may be still struggling with including infertility problems, social stigma, limited family support, questions about ongoing birth family contact and issues related to helping an older child adjust to adoption.

The high levels of stress related to special needs adoption may be an indicator for a potential adoption disruption or dissolution (McGlone, Santos, Kazama, Fong & Mueller, 2002). Todis and Singer (1991) found that social support, positive attitude and

appreciating the child's progress are all ways in which stress related to parenting a child with special needs can be mediated and possibly reduced. Services that assist families with increasing strengths in these target areas are needed to support families as more children with special needs are being adopted from foster care.

Post-adoption Services

Despite the special needs of children waiting for adoption and children adopted from the foster care system, rates of disruption and dissolution are relatively low. Disruption rates are generally accepted to be between 10 and 25 % depending on the study (Festinger, 2002). Dissolution rates are harder to establish, as there is no mandate for National reporting, and children do not always come back into the foster care system when their adoption dissolves. Most studies show that dissolutions occur between 1 and 10 % of special needs adoptions (Festinger, 2002; McDonald, Propp, & Murphy, 2001) and one review found that it may be as high as 10-15% (Rosenthal, 1993). Based on the relatively low dissolution rates and overall parent satisfaction, special needs adoption are seen to result in positive outcomes for the children and families (Barth, 2000; Gallant, 2000). Despite relatively low disruption and dissolution rates, the literature documents the need for post-adoption services in order to prevent the disruptions and dissolutions that do occur and to create an environment that gives families the confidence to proceed with adoption plans knowing that services and support will be available for them and their children in the future. Post-adoption services are also necessary to enhance intact adoptions, giving families the support needed to raise challenging children (Festinger, 2002; Freundlich, 2000; Marcenko & Smith, 1991; Rosenthal, Groze, Morgan, 1996;

Watson, 1992). McRoy (1999) found that those adoptions that do disrupt or dissolve often do so because of parent or child characteristics, as well as service delivery problems within the child welfare system. Improved services for these families may play a mediating factor thereby preventing disruptions and supporting healthy families.

Literature on effective and available post-adoption services is limited (Festinger, 2002), yet the need for services to help families adjust and to assist with managing the ongoing behavioral challenges that children with special needs often exhibit is strong (Festinger, 2002; Evan B. Donaldson Institute, 2004). Adoptive families report that they have difficulty finding post-adoption services that are sensitive to their challenges, appropriate, and affordable (Groze, 1996; Festinger, 2002). Specific needs that families have identified in various studies include parent support groups, groups for older children, informal contact with other families who have adopted children with special needs, summer camps that can manage their children, and recreational activities that are appropriate and prepared to manage the behaviors and challenges specific to adoption (McDonald, Propp, & Murphy, 2001; Festinger, 2002, Rosenthal & Groze, 1990; Groze, 1996).

Animal Assisted Therapies and Activities

The program developed for this study drew on a variety of theories including social learning and behavior theory and treatments for related disorders, as well as on the growing field of animal assisted interventions to meet the needs of families who adopt children from the U.S. foster care system. Literature on the benefits of the human-animal bond, sports/athletics, support groups and milieu approach are pulled together into a

treatment program designed to address some of the challenges families who adopt children with special needs face. The intervention focuses on skill development while the mother and child are participating in a positive experience together. The horse and the child's motivation to work with and ride the horse are used as a catalyst for change.

Therapeutic Horsemanship

Therapeutic horsemanship programs have existed in Europe since the late 1800s and have been spreading through North American since the mid 1900s. In 1969, the North American Riding for the Handicapped Association (NARHA) was developed to monitor and develop safety and practice standards for the developing field. In 2006, over 650 certified therapeutic horsemanship programs were registered with NARHA. There are currently over 800 programs accredited. These riding centers develop programs for children and adults with a variety of physical, cognitive and emotional/behavioral challenges. For individuals with physical disabilities, the movement of the horse is used to facilitate goals in physical movement and improvement. Individuals with cognitive or emotional/behavioral challenges are given new opportunities for learning that can be tailored to their needs and the development of self-confidence and self-esteem. Therapeutic horsemanship programs provide a tremendous source of empowerment in children and motivation to change.

Horses dominate fiction and non-fiction literature, movies and other entertainment media for children. Children are able to learn new skills while participating in an activity that many of their heroes and heroines from literature and pop culture participate in.

Therapeutic horsemanship programs create a place for children to learn new behaviors while developing skills that foster self-confidence and personal development.

Therapeutic Horsemanship for Adoptive Families

This program was based on skill development in working with and riding horses. The mothers were given training and assistance in working with the horses and helping their child work with the horses. This program was based on the model used at Equest to teach individuals with disabilities how to ride horses and focused on increasing self-confidence through skill development. The program had six core components that are grounded in a theoretical framework that will be discussed in Chapter three. Table 1.1 shows the core components that made up the therapeutic horsemanship program that was evaluated in this study.

Table 1.1
Therapeutic Horsemanship Program – Core Components

Core Components
1. Skill Development
2. Behavior Modeling
3. Immediate Consistent Reinforcement
4. Natural Outdoor environment
5. Physical Activity
6. Positive mother-Child Activity

Components 1-5 are traditionally part of the Equest program. Skill development was the foundation of this program. Behavior modeling was used in working with the horses, volunteers and staff and was an important way to teach new behaviors. The horses provided immediate and consistent reinforcement by reacting to the behavior and emotions exhibited by the children and mothers. The natural outdoor environment and

physical activity was critical to the milieu of the program. Component six was added to address the relationship between the mothers and their adopted children. The Equest program traditionally focused solely on the individual who is enrolled in the riding lessons; this program added the component of making the mother part of the program rather than just an observer. Including the mother in the program gave her the opportunity to utilize lessons learned at Equest in other parts of her child's life and gave the mother-child pair an activity that is positive, fun and uniquely theirs**.** Through engaging in the program with their child, the mothers learned the same horse skills that the children were learning and were able to observe the learning process of their child and had the opportunity to incorporate this learning into their home lives. In addition, the relaxing environment and contact with the other mothers provided informal support and the opportunity to network with other adoptive mothers.

Importance and Purpose of the Study

As children waiting for adoption become older and adoptive families are faced with adopting children with increasing behavior problems, it is increasingly important to find treatment approaches that support families who choose to adopt children with significant emotional and behavioral challenges. As the literature in Chapter Two will show, the lack of effective and appropriate treatments and activities for children adopted from foster care leave families with few options for help and little support in meeting the challenges these children present. Little work has been done to generate therapeutic activities for children in foster care or adopted from foster care. Treatment professionals are often untrained in the specific issues related to foster care and adoptions and

recreational activities that are appropriate and useful for these children and their families are limited and difficult to find.

The purpose of this study was to explore the phenomenon of a therapeutic horsemanship for children adopted from foster care with emotional and behavioral and their mothers. In particular, the study assessed whether or not participation in the program was related to improvement in child self-esteem, externalized child behaviors and parenting stress.

Research Questions

The program was designed to primarily teach the children how to ride horses and teach the mothers how to work with the horses and help their children get their horses ready to ride. The therapeutic goals were to increase the child's sense of self-esteem and self pride thereby improving externalized behavior which in turn decreased the level of parenting stress for the mothers.

Research Questions and Hypotheses

1) Question: Is program participation related to an improvement in the child's externalizing behaviors?
   Hypothesis: Participating in the program is related to child external behavior.
2) Question: Is program participation related to an increase in the child's self-esteem?
   Hypothesis: Participating in the program is related to the child's level of self-esteem.
3) Question: Is program participation related to a decrease in the level of parenting stress?
   Hypothesis: Participating in the program is related to the mother's parenting stress.

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Several theoretical frameworks and perspectives were utilized when developing a therapeutic horsemanship intervention for post-adoption service treatment option for children with special needs and the families who have adopted them. Therapeutic horsemanship is a multi-modal intervention constructed using components from Social Learning Theory, Behavior Theory and the foundation of the Strengths Based Perspective. In addition, features of alternative theories such as milieu therapy, physical activity, and the biophilia hypothesis were also considered appropriate for constructing this intervention for this population.

The core components of the Therapeutic Horsemanship Program were developed based on a variety of theoretical constructs from behavioral theory, social learning theory, exercise theories, biophilia and the use of therapeutic milieu that have been shown to be effective with working with children with special needs. Table 2.1 lays out the components of the Therapeutic Horsemanship Program and the theoretical constructs supporting each component. Each theory and the core component that it supports is discussed in the following sections.

Table 2.1
Therapeutic Horsemanship Program – Core Components and Theoretical Constructs

Core Components	Theory	Theoretical Constructs
Skill Development	Behavior Theory	Skills Training
	Social Learning Theory	Human Agency Skill Mastery Social Persuasion Triadic Reciprocal Causation
Behavior Modeling	Behavior Theory	Skills Training
	Social Learning Theory	Triadic Reciprocal Causation Vicarious Experiences
Immediate Consistent Reinforcement	Behavior Theory	Skills Training
	Social Learning Theory	Skill Mastery
Natural/ Outdoor environment	Social Learning Theory	Influence of Social Environment
	Biophilia Hypothesis	Fundamental Connection to Nature
	Milieu Therapy	Holistic Social Energy
Physical Activity	Exercise	Hormone levels
Positive mother-Child Activity	Social Learning Theory	Human Agency Triadic Reciprocal Causation
	Milieu Approach	Holistic Social Energy

Behavior Theory

Behavior theory is based on the way behavior is shaped by antecedent events and consequences (Robbins, Chaterjee, & Canda, 2006). Children in foster care and children adopted from the foster care system often display a wide range of behavior problems that

often cause the adoptive parents and families a great deal of stress. Behavior is often the focus of therapy and therapeutic activities and families frequently report difficulty in finding therapeutic services and activities that adequately meet the needs of their children and are supportive of their family.

Behavioral theory emerged in the 1900s with the work of Watson, Thorndike, and Pavlov. It is the foundation for numerous effective social work treatments with individuals, couples, families, groups, and communities (Thomlinson, 1984). Over time, behavioral theory has developed two categories of thought; classical behaviorism (primarily attributed to the work of Pavlov) and neobehaviorism (primarily attributed to the work of Skinner). The focus on behavior in the work of Pavlov, Skinner and other behavioral theorists, marked a significant shift away from the thought process of psychoanalytic theory to observable behavior.

Although Pavlov and Skinner both studied different behavioral processes, there are several basic assumptions that apply to both: all behavior is learned and can therefore be changed. The process can apply to social problems, personal problems, etc. (Turner, 1996). Behavior is formed through the events that occur before and consequences that occur after a behavior and can thereby be changed by changing the events that occur before and the consequences after.

Skills-based programs based in Behavior Theory contain four specific steps found to be highly effective in the acquisition of new skills (Harris & Franklin, 2007). These steps are: 1. Practitioner models the skill, 2. Client practices the skill, 3. Client does homework and incorporates skill into everyday life and 4. Practitioner gives feedback.

Therapeutic horsemanship program fit very well into behavioral theory. For basic safety reasons there are behaviors that all riders must follow and the consequence of not being able to ride is very powerful for children and often can motivate them to behave in an acceptable way. Children who have been in the foster care system are often struggling to overcome negative learned behaviors as well as challenges coming from affects of prenatal drug exposure and a biological history of mental illness. Traditional behavior modification plans may be difficult for parents experiencing high levels of stress to implement therefore resulting in limited or no change in behavior. In addition, many of these children have been in traditional talk therapy for so long that they are resistant and frustrated with the process. Horsemanship programs can be a powerful motivator for children who want to learn to ride and be around horses.

This process is followed in the Therapeutic Horsemanship Program. The skills are specific to working with horses but the lessons are often similar to the skills needed in everyday life. During lessons at Equest, the Instructors use a multimodal way of accomplishing each step laid out in Table 2.2. Instructors explain the skill verbally with a justification for why it is important to learn. Some skills related to working with and riding horses can seem arbitrary and providing an explanation assists with the skill acquisition. This is followed by the Instructor demonstrating the skill while on the ground which often includes a humorous demonstration by the Instructor imitating how the horse will respond. Humor adds the comfortable environment and makes learning fun and stress-free.

Homework assignments are related to the skill rather than practicing it as most riders at Equest do not have horses at home to practice on. Assignments include researching information about horses or thinking about how the skill learned with horses might be translated to people. An example is learning how to read the body language portrayed by horses through their ear movements. The assignment may be trying to recognize human body language that correlates to the language expressed with different ear movements in the horses. The horses are able to provide feedback that is highly correlated to the Instructor feedback. The Instructor gives verbal feedback praising what has been done correctly and offering suggestion for improvement. The horse gives immediate feedback by responding to the rider's cue for a specific behavior or not. The horse feedback is often more enforcing than the Instructor feedback because of the consistency of the horses. Therapy horses are well trained and chosen for their ability to give consistent and reliable feedback to their riders.

Table 2.2
Skill Acquisition Steps in Therapeutic Horsemanship Program

Step	Therapeutic Horsemanship Program
Practitioner Models Skill	➢ Instructor explains skill ➢ Instructor gives reason for why skill is important ➢ Instructor give demonstration of skill on the ground ➢ Assistant Instructor gives demonstration on the horse
Client Practices Skill	➢ Rider practices skill with assistance ➢ Rider practices skill without assistance (when ready)
Client does Homework	➢ Homework is given to learn about topic related to skill or how skill would translate into being with people
Practitioner gives Feedback	➢ Instructor gives feedback immediately and in subsequent lessons ➢ Horse gives feedback immediately by complying with request when properly cued or not

Social Learning Theory

Social learning theory is based on social context and the learning processes that occur within that context. Responding to the shift from psychoanalytic thought to strict behavioral theory, Social Learning Theory integrated the internal thought process into the context of observable behavior (Robbins, Chaterjee, & Canda, 2006). Clark Hull built on Behavioral theory and added the intervening variable of thought and emotion in the individual (Hilgard & Bower, 1966). The antecedent now interacts with the emotions and thoughts of the individual rather than causing a response in isolation. Hull and later Dullard and Miller brought together the tenants of behavioral theory with many of those from psychodynamic behavior.

Albert Bandura became concerned with the lack of attention to the complex social environment that he believed contributed to behavior and learning. Without accounting for complex social factors, Bandura felt that social learning theory was not able to account for new or unusual learned responses (Robbins, Chaterjee, & Canda, 2006). The concept of reciprocal determinism, as proposed by Bandura is an interaction between behavior theory, learning theory and Piaget's cognitive development theory. Reciprocal determinism allows an individual to control thoughts and environments and thereby control behavior. Bandura's theory is based on analyzing the events and environment that surround and affect a behavior (Greene and Ephros, 1991). People learn from each other and the environment in which they live, often through observational learning, imitation, and modeling. Triadic Reciprocal Causation is the interaction between the personal, behavioral and environmental attributes. Each area contributes to an individual's overall

learning and functioning. A change in one of these three areas, by the very nature of the triadic relationship, will have an impact the other two.

Social Cognitive Learning Theory is a compelling theory for why a Therapeutic Horsemanship Program may be valuable for children who have been adopted from foster care and their families. Children in foster care have learned adaptive behaviors that have allowed them to survive in abusive or neglectful biological families, multiple foster homes and then adoptive placement. Changing behaviors that have been learned out of necessity can often be extremely challenging. The focus on complex social contexts of Bandura's Social Cognitive Learning Theory advocates the influence of events and thoughts and emphasizes the weight of social context. To change behaviors, the events, thoughts and social context needs to change. Equest is a dramatic change in environment that affects the learning possibilities of both the children and their adoptive mothers.

Therapeutic horsemanship programs create a social context that is a complete change from most families' normal social context. Several factors of these programs create this dramatic change. The first and most obvious is the physical environment. Horsemanship programs have horses and are located at a riding facility and usually are out in the country. Horses are a very powerful motivator for a lot of children. Therapeutic riding programs are designed to create success at every step of the process. Horses are careful screened and extensively trained for children and adults with a variety of challenges. Volunteers are trained in horsemanship skills and working with people with disabilities and Instructors meet strict credentialing criteria in horsemanship proficiency, teaching skills and knowledge of disabilities. The environment at Equest,

the facility where the Therapeutic Horsemanship Program is taking place is in a serene location in the country. The staff is trained to work with people dealing with a variety of challenges and teach from a strengths based perspective. In addition, the volunteers are compassionate and caring people and the horses are selected and trained for their positive attitudes and skills to manage a variety of challenges. This creates a very positive environment through which change can be facilitated. The power of the social context in this situation is so strong that children with extreme behavior challenges quickly learn new behaviors after understanding the environment and what the benefits of new behavior choices are. For some children, the newly learned behaviors are more readily translated to other environments than others.

Skill Development is a key component of the Therapeutic Horsemanship Program. Skill mastery is the most influential source of change according to Social Learning Theory. Learning and succeeding at a new skill creates belief in oneself and a sense of confidence about one's own abilities. This program is grounded in skill mastery through the teaching of riding skills. The children learn to ride and the mothers learn to help care for the horses and assist their children in getting the horses ready to ride. In addition to skill mastery, there is a sense of empowerment that accompanies the mastering of riding a one-thousand pound animal and being able to control that animal's movements and behavior. This further develops the sense of confidence and ability in the children and their mothers.

Social persuasion is used as a method to assist individuals in the process of skill mastery. Individuals can be persuaded to apply themselves to a task that they may

otherwise feel is beyond their capabilities (Bandura, 1997). The Instructors, staff and volunteers play a role in this construct through encouragement and praise and verbal support. Equest is filled with people who are there because they believe in the individual's ability to succeed at challenging tasks and this belief is often borrowed by riders as they gather up the courage needed to attempt a new skill. Instructors are reasonable in their expectations so as to not falsely inflate an individual's hope for success while steps are taken through horse choice and equipment modification to ensure as much success for each individual as possible.

Physical Activity/Athletics

Athletics and physical exercise for children is becoming an increasingly focused on area of research and intervention. Medical evidence shows that regular exercise increases hormone levels related to depression (Bunker, 1998; Jaffee & Ricker, 1993). Recently there is research suggesting that people with PTSD have decreased levels of the same hormones the exercise increases – serotonin and norepinephrine (Center for research on Girls and Women in Sport, Presidential Report, 1997). Children in foster care often show symptoms of PTSD and depression. Exercise is increasingly being used to supplement therapy for these mental health challenges with significant levels of success. The therapeutic riding program benefits children in terms of exposing them to regular exercise thereby increasing their "positive feeling" hormones as well as giving them an activity at which they will succeed.

In addition to benefits for diagnosed mental health issues, the literature shows that exercise has a positive effect on children's self-esteem (Center for research on Girls and

Women in Sport, Presidential Report, 1997; Bunker, 1998; Jaffee & Ricker, 1993). Sonstroem and Morgan (1989) developed a model connecting physical activity to global self-esteem. The model suggests a direct relationship between exercise and psychological and social well being. Support for the relationship between physical activity and self-esteem is growing as mental health professionals are considering the benefits of exercise as much as health professionals (Schomer & Drake, 2001). Specifically, aerobic exercise and resistance training have both been associated with improved self-perceptions and self-esteem (Sonstroem & Morgan, 1989). More research needs to be done on the mental health benefits of physical activity in much the same way that it has been done in physical health.

While many school aged children can get involved in soccer, soft-ball or a variety of team related sports at school or a local recreation center to gain the benefits from exercise, children who have been in foster care often experience such difficult emotional and behavioral challenges, that they may not be able to access these opportunities. They often do not have the social skills to relate appropriately with their peers or have motor control issues related to their pre-natal substance exposure, causing them to be ostracized and further exacerbate their challenges. Therapeutic riding provides an athletic exercise that is an individual sport done in a group setting. Each participant derives the benefits of exercise and increased levels of hormones while experiencing personal success and slowly learning the skills to appropriately interact in a group. Horse dynamics and horse behavior are used to address group/herd behavior – time will be spent learning how the horses communicate through body language and how

that may be different or similar to how people communicate through body language. These lessons will focus on body language and communication between the horses and how that relates to communication between group members while they are riding.

Milieu Approach

Milieu therapy in psychoanalysis has been around since the 1920s as a treatment method. G. Ammon, however, changed the practice to be a group activity that is carried out as a component of a therapeutic system with interactive parts. The group activity is to be part of a "holistic field of social energy and group dynamics" (Wied & Lutova, 2002). Weid and Lutove (2002) further explain Ammon's model an approach that allows the client to feel that the environment is their own, a healthy environment that is beneficial to the client. Gunderson (1983) describes the Milieu approach as involving containment, support, punctuality, order, tolerance, limit-setting, enthusiasm and sensitivity. Wied & Lutova (2002) found that a milieu approach is effective in increasing coping skills for people with mental health challenges. The environment Equest is one of positive regard and acceptance. Persons of all ability levels are treated with respect and encouragement. Individuals who are enrolled at Equest as well as staff and volunteers work in a system with limits and structure that allows for problems and challenges to occur and be worked through in a positive and tolerant manner. While behaviors that create problems with safety are never allowed, clients are able to react and work through emotional and behavioral problems without judgment or consequence.

Biophilia Hypothesis

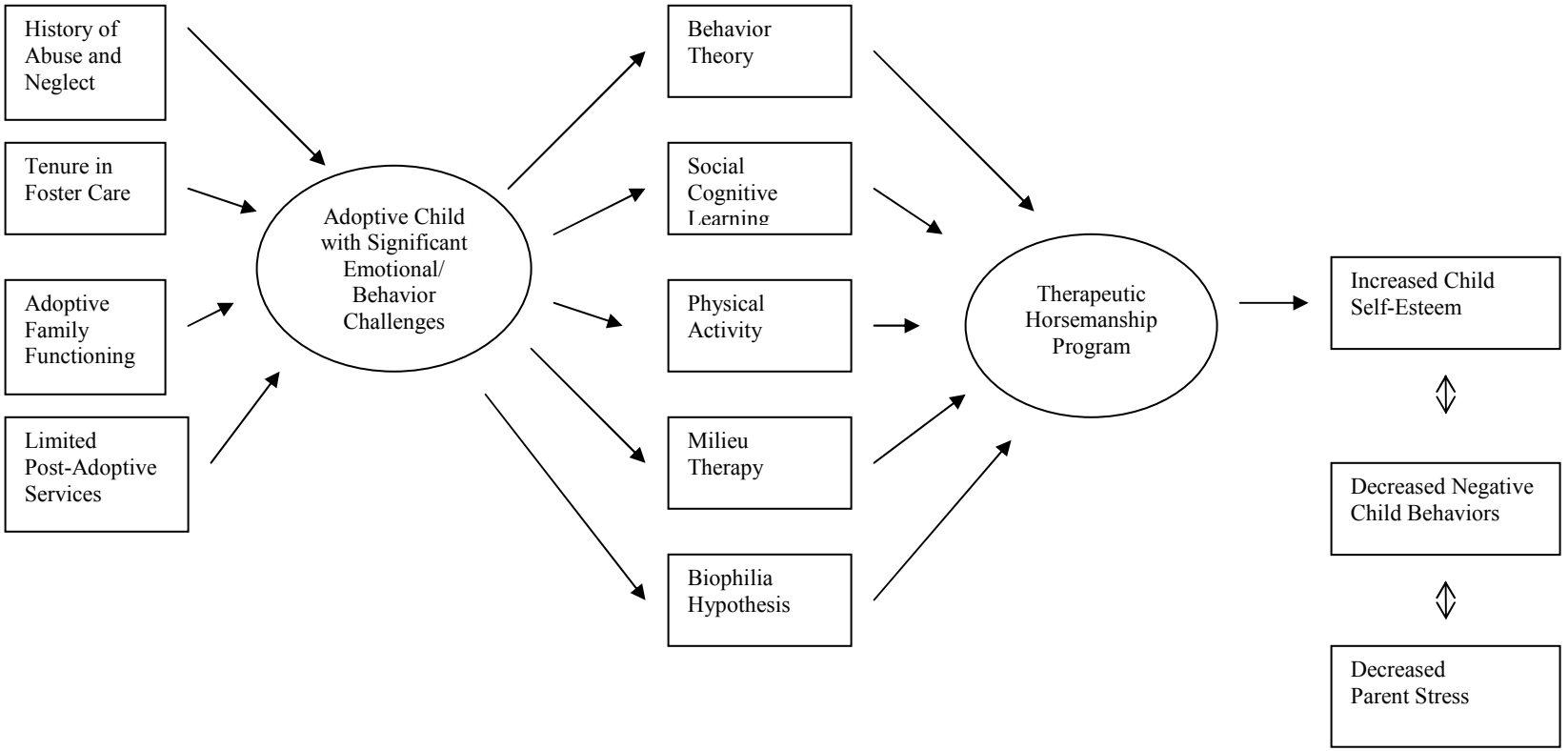
The Biophilia Hypothesis represents an innate interest in life; people have a biologically based attraction to all forms of life due to the co-evolution of humans and other animal species (Melson, 2001). Kellert (1997) suggests that part of the biophilia hypothesis is based on a view that there is worth and importance in the natural world. Melson (2001) describes the biophilia hypothesis as suggesting that the presence of animals signals a well-being and reassurance for people. This fundamental hypothesis of biophilia underlies what most researchers in animal-assisted interventions believe to be the basis of why animal-assisted interventions may have such strong effects on the functioning of various groups of people. This hypothesis is consistent with the milieu approach.

The children and their mothers will be immersed in the physical environment throughout the program. They will be learning how a barn is run, how to clean and care for horses, and how to be in relationship with the animals as well as the entire environment and all that it entails. Wilson defines biophilia as the urge to affiliate with other forms of life and the innate tendency to focus on life and lifelike processes. This view is similar and builds off the philosopher Eric Fromm who suggested it is the passionate love of life and all that is alive that is the foundation for biophilia. Humans have a biologically based attraction to other forms of life due to co-occurring evolution with other forms of animal life (Kellert, 1997).

The biophilia hypothesis suggests that the presence of animals in a non-agitated state signals well-being and reassurance to humans (Melson, 2000). It does not suggest a

love of animals or nature, but rather an intrinsic interest and attraction to nature. According to Melson (2000) the biophilia hypothesis is very timely because child development specialists are beginning to assess the impact of animals and nature on children. In recent past, it has only been taken in account when looking at adults.

Figure 2.1 Conceptual Framework



Parent Support Groups / Child Support Groups

As noted in the discussion of post-adopt services, parent support groups and older child support groups are asked for by parents who have adopted children with special needs. This program was based on a team approach – the mother-child-horse team was the foundation for the program. Each group had 22 sessions during which it the group had the opportunity to become an informal support system for the children and the mothers. There were several activities built into the program that created a time for the children to work together and the mothers to work together. For example, while waiting to mount their horses, the children waited in a specified area where they have the chance to interact and socialize.

The mothers had time to sit and talk once a week while their children were riding. There were two classes per week, during one class the mothers remained in the arena during the lesson to assist and during the second lesson they had the opportunity to leave the arena after the children had completed their warm-up exercises and have time to socialize and get to know each other while watching their children ride. Additionally, there was a short time to debrief about each lesson afterwards, providing further opportunity for each member of the group to find support from the others in the group. In the fall session, these debriefing periods were held in the meeting room after the horses were put away and in the spring session these debriefings were held while the children were still on their horses in the arena. This change was made based on the recommendation of mothers in the fall group.

Human-Animal Bond and Animal-Assisted Interventions

Historical References

The presence of animals in the lives of humans can be traced back to ancient times. Animal-human interaction is frequently referenced in historical writings and literature throughout the centuries (Netting, Wilson, & New, 1987). Animism is the most archaic belief system involving a relationship between human and animal souls that may cause illness and disease if not properly attended (Serpell, 2000). In the Native American culture people believe in guardian spirits which are often represented by animals. Shamanism, an archaic technique based in spirituality and magic poses a relationship between the shaman and animals in which the person is the guardian of the animal spirit. Shamans are considered able to transform into animals when it is needed, creating a symbiosis in which the souls fuse (Serpell, 2000; Eliade 1964). Animal spirits, either one's own or that of a shaman, were attributed with medical and healing powers and have been believed to be sources of illness and wellness (Serpell, 2000). Animal-human interaction is frequently referenced in historical writings and literature throughout the centuries as well (Netting, Wilson, & New, 1987).

In contemporary times, writers have begun to document the therapeutic benefits of human interaction with animals. The first well-recorded program acknowledging the therapeutic benefits of animals was at the York Retreat in England in 1813, where animals were used in conjunction with other therapies to treat people with mental illness (Serpell, 2000). Animals were allowed to interact with patients in the courtyard as well as

during treatment sessions. Patients were reported to exhibit less aggression and more social interaction as well as greater treatment compliance and improved prognoses.

Animals in Treatment

In the United States, Boris Levinson is considered to be the first to begin to document and write about the psychological impact that animals can have on children when he published an article in Mental Hygiene in 1962 (Mallon, 1994). James H. S. Bossard, however, addressed the benefits of dog ownership in an article published in Mental Hygiene in 1944. In the 1960s, Levinson wrote about how his dog was able to reach disturbed children in a manner that he alone was not (Levinson, 1969). Since Levinson, many writers have documented anecdotal evidence and numerous testimonies to the various benefits of animals in therapeutic settings, but very little rigorous research has been conducted. There is evidence that pets are effective in reducing blood pressure (Katcher, 1981), increasing survival of coronary artery illness (Friedman, Katcher, Lynch & Thomas, 1980), facilitating mental alertness (Proulx, 1988) and improving balance and posture (Duncan & Allen, 2000).

As The Age of Enlightenment brought changes in Industry, the Arts, and Socialization, so it brought a change in how animals were viewed by society. Historians have documented changes in attitudes towards wildlife, perceptions of wilderness as well as the practice of keeping animals as pets (Serpell and Paul, 1994). John Locke advocated that children be given pets to care for as a means to developing skills of nurturing and feelings of responsibility towards others (Locke, 1699, p.154). Numerous reformers of the time believed that children could learn gentility and compassion be

caring for animals as well as learning to tame their "beastlike characteristics" (Serpell, 2000; Meyers, 1998). In the 18th Century animal welfare issues were recurrent in children's literature. The perceived benefits of caring for animals were then incorporated into treating the mentally ill. The first well-recorded program acknowledging the therapeutic benefits of animals was at the York Retreat in England in 1813, where animals were used in conjunction with other therapies to treat people with mental illness (Serpell, 2000). The study showed a decrease in the use of medication and a decrease in negative patient behavior.

According to Orr (1994), children must be exposed to nature as a positive adventure or biophilia does not take hold. Despite the intrinsic attraction to life and nature, humans can mess it up. If this positive exposure does not occur, the child's mind may lack a critical dimension of perception and imagination. This matches well with the disruption in attachment patterns. Children have a natural draw towards relationships, yet when they are broken repeatedly at a young age the ability to attach becomes damaged. The question then becomes whether or not reestablishing the biophilia may be a path towards reestablishing a child's ability to attach in relationships.

Animal Assisted Activities in Social Work

Animal-assisted interventions include a variety of programs incorporating a wide range of animals and populations. Programs are found in professional settings such as nursing homes, residential treatment centers, hospitals, schools, and others. According to the National Association of Social Workers (NASW), professionals in social work are involved in many contexts that incorporate animal-assisted interventions. The match

between animal-assisted interventions and Social Work is a very natural one. Theoretically, the person-in-environment and ecological perspectives embraced by Social Work matches the theoretical underpinnings of the biophilia hypothesis and milieu approach. Despite this, social work research literature shows a limited number of studies involving animal-assisted interventions.

Person-in-environment embraces the impact of the environment on a person. It acknowledges that a person does not exist or function in a vacuum but rather is affected by environment. Kemp, Whittaker, and Tracy (1997) state that the perspective refocuses attention on environmental intervention, which they suggest has been historically significant yet often neglected. That is, the environment should be central to Social Work assessment and practice. In a world that focuses increasingly on technology, Social Work remains committed to the person-in-environment perspective. With the increasing prevalence of animal-assisted interventions, Social Work has the opportunity to take an even more literal interpretation of this perspective and help clients re-connect with their environment through the interaction with animals.

Despite similarity of intervention areas, social work research literature shows a limited number of studies involving animal-assisted interventions. At this point in time, it is critical to assess the state of the research and develop a plan for program evaluation and development of an evidence base to support the efficacy of animal-assisted interventions. Although the empirical literature is currently spread across disciplines, mostly outside of the Social Work profession, Social Work is in a unique position to move the research forward. It not only embraces similar theoretical perspectives, the

profession works with a wide range of populations, including many that may benefit from animal-assisted interventions.

Empirical Literature

Animal Assisted interventions and therapeutic horsemanship programs have been in practice for many years. The research, however, is waning and is in its' infancy. There are four major areas that need to be addressed at the state of research moves forward: Theoretical framework, Program explication, Treatment fidelity measures and Rigorous methodology. These areas will be discussed after a review of the current empirical literature.

Studies reviewed are divided into two primary categories: (a) interventions with small animals (e.g. dogs, cats), and (b) interventions with horses. This distinction is made based on the differences in the implementation of interventions. Interventions with small animals are frequently carried out in a setting that is already familiar to the client, such as residential treatment centers, homes, or schools. Interventions with horses are usually conducted at a therapeutic riding center. Environment is a critical aspect of treatment in many populations, and the distinction is important with animal-assisted interventions. Two tables are included to provide an overview summary of the studies reviewed.

Findings for each study are categorized into Mixed and Positive. Mixed findings indicate that at least half of the sample improved on at least half of the variables

measured. Positive findings indicate that almost all the sample improved significantly on almost all of the variables.

Overview of Empirical Studies - Small Animals

Eleven studies were reviewed in this paper; three had positive findings (Redefer and Goodman, 1989; Heimlich, 2001; Adams, 1997), 8 had mixed findings (Barker, et al, 1998; Marr, et al, 2000; Limond, et al, 1997; Martin and Farnum, 2002; Walsh and Martin, 1994; Hansen, et al, 1999; Hergovich, et al, 2002; Hanselman, 2001). Examples are given of four studies; 2 with positive findings and 2 with mixed findings.

Marr, et al (2000) conducted a study assessing the effects of animal-assisted therapy on pro-social behaviors in 69 patients on an inpatient psychiatric unit in a state hospital; 70% male, 30% female. The ethnicities of participants were: 50% Caucasian, 41% African American, and 9% Latino. The participants all had dual diagnoses – mental illness and substance abuse or addiction. The most common mental illness diagnoses were schizophrenia (48%) and bipolar (27%). Participants were randomly assigned into two rehabilitation groups with a focus on preventing further substance use as a coping mechanism. In the intervention group, small animals were brought to each session for interaction with the group participants. Participants were not required to interact with the animals and could choose how much they wanted to interact. Only 1 female participant chose not to interact with any animal during the course of the study. A two group (intervention and control), by weeks, repeated measures design was used. The Social Behavior Scale was administered and scored daily by a staff person who was not leading the group. The same rater was used for the intervention and control groups. Intervention

group participants interacted significantly more often with other participants than the control group participants. The intervention group participants also smiled and showed pleasure significantly more frequently that those in the control groups. In addition there was significant improvement, over weeks, on the measures of socialization, helpfulness, and cooperativeness.

Heimlich (2001) conducted a study assessing the effects of animal-assisted therapy on 14 children with severe disabilities residing in a residential treatment center. There were 6 females and 8 males diagnosed with MR, CP, Seizure disorder, PDD, Down syndrome and Autism. The children ranged from 7-19 years. The program was 8 weeks of twice weekly, 30-minute sessions with a therapy dog. The Measurement of Pet Intervention (MOPI) scale was used. The scale measures attention span, physical movement, communication and compliance. The Direct Observation Form and the Teacher's Report Form of the Child Behavior Checklist were also used. Three school staff observed the students in order to establish a baseline and again after completion of the intervention. Rater 1 documented positive effects for 12 of the 14 students, Rater 2 documented positive effects for 9 of 14 students, and Rater 3 documented positive effects for 7 of 14 students. There was high reliability between Rater 2 and 3, but not with Rater 1. The author cautions about the reliability problems as well as many other limitations.

Adams (1997) conducted a case study assessing the benefits of animal-assisted therapy on speech and language. The subject of the case study was a 72-year old Caucasian woman who had suffered two cardiovascular accidents, 27 months prior to the study and 15 months prior to the study. She also had epilepsy, diabetes, right-side

paralysis, and dementia. Following her last stroke, the client was verbal but apraxic. Treatment sessions were held twice weekly for four weeks during which two therapy dogs were positioned near the client's wheelchair. Activities and exercises designed to improve her speech incorporated the dogs; for example questions were asked about the dogs that forced the use of certain speech skills. A time-series design was used wherein two testing sessions were conducted**,** followed by eight treatment sessions ending with two testing sessions. The Boston Diagnostic Aphasia Examination (BDAE) was used for the testing sessions. The participant was asked to perform two types of activities during each session targeting her speech. Both activities had clinically significant improvement from the first session to the last session. Social behavior occurrence improved in 4 of the 7 domains measured. The participant was initially diagnosed with an Aphasia severity rating of 1; this rating, however, did not change over the course of the treatment.

Walsh and Mertin (1994) conducted a study assessing the effects of animal-assisted therapy on depression and self-esteem of 8 women prison inmates with unspecified disabilities. Each participant was responsible for the training and care of 3 dogs. The animal program ranged from 4-12 weeks, depending on how long a particular dog took to become trained. The responsibility was a fulltime job and the women worked with a certified dog trainer and handler. The women were responsible for obedience and task training as well as grooming, exercise, and play. The participants were administered the Coopersmith Inventory and the IPAT Depression Scale pre- and post-intervention. One-tailed tests indicated statistically significant improvements on both measures. Other prisoners who later asked to be involved in the program said that they wanted to get

involved because they noticed the participants being calmer, less agitated, and outwardly happier.

Table 2.3
Empirical Studies with Small Animals

Study Authors (date)	Sample	Disability	Age Range	Design	Treatment	Target Variables	Findings
Psychiatric							
Barker, et al (1998)	N=230 139 male 174 female	Psychotic, Mood, and other mental illness	Mean = 37	Pre-treatment post-treatment crossover	Animal-assisted compared with therapeutic recreation	Anxiety	Mixed
Marr et al (2000)*	N=69 70% male 30% female	Schizophrenia, Bipolar, Psychosis, Depression	20-66 mean = 41.5	Quasi-experimental group design	2 substance abuse rehab programs (4 wks) – 1 incorporated animals	Coping skills, Social Interaction, Socialization	Mixed
Mental / Cognitive							
Redefer & Goodman (1989)*	N=12 9 male 3 female	Autism	5-10	Modified time lag design	18 sessions with therapist and therapy dog	Social interaction, Behavior isolation	Positive
Limond, et al (1997)	N=8 2 male 6 female	Down Syndrome	7-12	Repeated Measures design	Interactions with real dog vs. Interactions with artificial dog	Visual attention, Verbal / non-verbal initiation,	Mixed
Martin & Farnum (2002)	N=10 8 male 2 female	PDD	3-13	Within-participant repeated-measures	45 sessions, 15 wks. Compared interactions w/ ball, stuffed dog, and live dog	Behavioral and verbal interactions	Mixed
Heimlich (2001)*	N=14 8 male 6 female	MR, CP, Autism, Down Syndrome, PDD	7-19	Multiple Baseline design	8 sessions of animal-assisted therapy with a dog	Aggression, Irresponsibility Inattentiveness Socially w/drawn	Positive
Physical Disability							
Adams (1997)*	N=1 female	Multiple strokes	72	Case study, Time-series	Speech therapy with 2 therapy dogs – 8 sessions	One word answers, Object identification	Positive
Not Specified							
Walsh & Mertin (1994)*	N=8 All female	Disabilities – not clarified	Mean = 25.8	Pre- post-test design	4-12 weeks: Care / training of three dogs	Depression, Self-esteem	Mixed
No Disability							
Hansen, et al (1999)	N=34 14 male 20 female	No disability	2-6	Exp/cont. group, repeated measures designs	Dog present during physical exam	Physical arousal, Behavioral stress	Mixed
Hergovich, et al (2002)	N=46	No disability	First graders	Experimental /control design	Dog incorporated into classroom	Social competence, Empathy, Soc.-Emot.	Mixed
Hanselman (2001)*	N=7 5male 2female	No disability	14-17	ABA	10 week anger management with dogs	Tension, Confusion, Anger, Fatigue	Mixed

Overview of Empirical Studies - Horses

Six studies incorporating therapeutic horseback riding were reviewed. Two of the studies had positive findings (Bizub, et al, 2003; Bertoti, 1988) and 4 had mixed findings (Biery and Kauffman, 1989; Cawley, et al, 1994; Farias-Tomaszewski, 2001; Fox, et al, 1984). The studies reporting positive findings involved people with psychiatric or physical disabilities, and the studies reporting mixed findings involved people with cognitive or physical disabilities. Three examples of these studies are given, 2 positive and 1 mixed.

Bizub, Joy, and Davidson (2003) conducted a study to assess the benefits of a ten week therapeutic horseback riding program on five adults with longstanding histories of psychiatric disabilities from a clubhouse model psychiatric program. The program was limited to 5 participants for safety of riders and horses; three men and two women chose to participate; four were Caucasian and one was African American. The therapeutic horseback riding program included a 40 minute drive to the riding center, instruction and time to groom and tack their horse with the assistance of a volunteer, and a 1 hour riding lesson. Following the lesson the five participants participated in a therapeutic group to process their experience. Participants engaged in a semi-structured interview at the completion of the program. The authors report numerous benefits for the participants including psychosocial gains, relationship development, ability to overcome fear and successful accomplishment. Follow-up interviews were conducted six months after the

program was complete. The authors report that participants relayed stories indicating ongoing and significant gains from the program.

Cawley, Cawley, and Retter (1994) conducted a study assessing the effects of therapeutic horseback riding on self-concept in a sample of 23 adolescents with special education needs. Since 6 of these students had previous riding experience, their scores were analyzed separately and not included in this study; 13 were male and 10 were female. The disabilities of the students in the sample were severe emotional disturbance (n=13), mental retardation (n=4), and learning disability (n=6). The program consisted of an 8 week riding program that including instruction in horse care and riding. Each session lasted for 2 hours, which yielded a total of 16 hours of horse contact. The Piers-Harris Children's Self-Concept Scale was administered pre- and post- intervention. Two psychologists administered the scale in a classroom setting. The authors report that the Behavior cluster was the only subcategory of the scale that showed statistically significant improvements after the 8-week program; school status, anxiety, popularity, and happiness all improved. The authors reported a negative correlation between increasing age and higher self-concept scores indicating a stronger impact on younger children.

Bertoti (1988) conducted a study assessing the effect of therapeutic horseback riding on the posture of 11 children with cerebral palsy. The researcher determined eligibility for the study based on severity of disability and contraindications to riding. Four females and 7 males participated. The therapeutic riding program lasted 10 weeks during which the children rode in groups of three twice weekly for a 1 hour session.

Children rode on sheepskins with the assistance of two volunteers to aid in repositioning and stabilization. A repeated measures design was used that consisted of a pretest followed by 10 weeks of no riding, a second pretest followed by a 10-week therapeutic riding program and a posttest. The pretests and the posttest assessments were completed by pediatric physical therapists not previously involved in a therapeutic horseback-riding program. In addition, qualitative information was gathered from multiple sources. The author reports that statistically significant improvements in posture were found. Subjective clinical improvements included decreased fear of movement, decreased hypertonicity, improved weight bearing, and improved functional balance skills.

Table 2.4

Empirical Studies with Horse

Study Authors (date)	Sample	Disability	Age Range	Design	Treatment	Target variables	Findings
Psychiatric							
Bizub, et al (2003)*	N=5 3 male 2 female	Psychiatric illness; schizophrenia	26-46	Qualitative post-treatment interview	10 weeks of therapeutic riding.	Psychosocial growth and development.	Positive
Mental / Cognitive							
Biery & Kauffman (1989)	N=8 5 male 3 female	Mental retardation, Down Syndrome	12-22	Single system designs	24 weeks of therapeutic riding	Physical balance	Mixed
Cawley, et al (1994)*	N=23 13 male 10 female	Learning disabilities, mental retardation	11-17	One group, pre-test post-test design	8 weeks of therapeutic riding	Self-concept	Mixed
Physical							
Bertoti (1988)*	N=11 7 males 4females	Cerebral Palsy	2-9	Repeated-measures design	10 weeks of therapeutic riding	Postural control and symmetry	Positive
Farias-Tomaszewski, et al (2001)	N=22 7 male 15 female	Multiple Sclerosis, Closed Head, Spinal Cord, CP, Scoliosis	17-61 mean=40	One group pre- post-test design	12 weeks of therapeutic riding	Physical and global self-efficacy, Behavioral self-confidence	Mixed
Mixed							
Fox, et al (1984)*	N=19 11 male 8 female	Cerebral Palsy, Spina Bifida, LD, MR	7-14	Pre- test, post test	1 therapeutic riding session (2 hours)	Balance, Coordination, Self-confidence	Mixed

Summary of Empirical Studies

The four areas that need to be addressed by the field of animal assisted activities in terms of research are: theoretical framework, program explication, treatment fidelity measures and rigorous methodology. Programs incorporating animals into treatment and programs based on learning to work with animals are not grounded in theory and are being utilized without theoretical structure. The programs are not well defined or described and very few treatment manuals are available. For the few programs that have tried to develop manuals for their programs, there is a lack of theoretical framework and claims of evidence based on anecdotal reports. This problem leads to issues related to treatment fidelity. Programs are not able to be replicated and therefore not able to be evaluated. When research studies have been conducted, they are done using weak methodology. The study designs are not well suited for the interventions or for the targeted variables. Frequently the measurements tools were not correctly chosen to effectively measure the target variables or accommodate the particular type of intervention. Good efforts are being made to conduct research but with limited funding and limited University support, the challenges are great.

Challenges with Animal Assisted Activity Research

There is a lack of awareness in the general public as well as within universities about the need for research on the possible health and mental health benefits of interactions with animals. The lack of awareness makes funding sources less readily available for researchers. The populations that professionals incorporating animal-

assisted intervention are working with are often multi-diagnosed individuals living in complex families and systems. This makes identifying specific variables and attributing change in these variables to a specific intervention very challenging. Programs that incorporate animals are difficult to run in a sterile clinic where extraneous variables can be controlled.

Additionally, a particularly unique challenge in doing research on animal-assisted interventions is that it is very difficult to operationalize what it is about the animals that seems to effect positive change. Variables such as empathy and socialization are very challenging to accurately measure, and yet they are often the variables that are impacted. A final challenge involves the professionals who are practicing with animals. The literature shows a sharp divide in practitioners and researchers. Very few practitioners regularly evaluate their practice, and, consequently, practitioners who incorporate animals are not evaluating or publishing their work.

Therapeutic Horsemanship with Emotionally Disturbed Youth

Most published literature on animal assisted therapy focuses on in-home domestic animals, primarily dogs (Hart, 2000; Frederickson & Howe, 2000). This literature, however, is not expansive, and dissertations must be referenced to identify current areas of research. Most available literature is anecdotal and describes therapeutic case studies using animals in therapy (Reimer, 1999; Gatty, n.d.). Even less research is published on therapeutic horsemanship, and while some dissertations focus on this area, most information comes from case studies, pilot programs, and client testimonials. Despite promising areas of research, empirical investigations into the benefits of animal assisted

therapies have been largely neglected (Fawcett & Gullone, 2001). Fawcett & Gullone go on to call mental health professionals to engage in this type of research to evaluate animal assisted therapy as psychological intervention for children. In a dissertation completed in 1999, Reiner agrees that the current research is sparse, but notes that what is available suggests that therapeutic horseback riding may be a valuable intervention for emotionally disturbed children. Katcher (2000) goes further to argue that animals have an effect on humans that far surpasses any ability to use them for therapy. She suggests that the mere presence of the human-animal connection is an extremely powerful relationship that is not being fully recognized or utilized.

Within the literature related to animal assisted therapy, many authors advocate that animals are effective when working with emotionally disturbed children. Animal assisted therapy reduces anxiety, thus increasing the potential for a therapeutic relationship to be developed between the adolescent and the therapist (Hanselman, 2001). In one study it was found that when animals were incorporated into the therapy session, the likelihood for self-disclosure increased (Turi, 1995). In another, animals were used as an adjunct to traditional psychotherapies. The purpose in this program was to utilize animals to assist in achieving treatment goals with emotionally disturbed children who had not previously responded to treatment (Drawe, 2001). The results showed promising results in most cases.

Research specifically looking at therapeutic horsemanship programs is in its infancy. Only a few animal assisted studies have been completed and none with rigorous

experimental designs but there have been several case studies and dissertations that are beginning to move the field of therapeutic horsemanship into empirical investigations. Recently, Greenwald (2001) found that emotionally disturbed males age 6-16 responded positively to a therapeutic horsemanship program. In a quasi-experimental design of 81 males in residential treatment, those involved in the therapeutic horsemanship showed significantly decreased levels of depression and anxiety. Emory (1992) found statistically significant results for asocial adolescents age 12-15. The study indicated that the intervention was effective for treating self-concept deficits in this population. The research design being used, however, is too weak to draw definitive conclusions about the intervention. The authors also failed to ground their treatment in theory or create a treatment manual that would allow for replication.

The limited research on an intervention with strong anecdotal support and the beginnings of empirical support shows a strong need for further research. Successful treatment for challenging adolescents is hard to come by, and although the research is currently weak, further research is needed to effectively determine if therapeutic horseback riding works and in what way is it most beneficial. The clinical and case study literature suggests several aspects and inherent experiences of therapeutic riding that are important and unique components of interventions that utilize horses. These include unconditional love, acceptance, trust and confidentiality, physical touch and affection, and enhanced empathy. In addition to these qualities, the sheer size of the horse and his willingness to engage is extremely empowering for children.

Therapeutic Horsemanship Program, Cost-benefit Assessment

Therapeutic riding is a relatively new intervention that draws on literature from a variety of areas. The program is designed to pull concepts from a variety of areas to create a program that meets a multiplicity of needs for these families and does it in an economical manner. Each child's tuition for this program was $1000. While this may seem high, a cost analysis offers a different picture. Each child participated in 22 lessons over the course of an academic semester. They had a master certified riding instructor, trained therapy horses, and multiple volunteers to ensure success and safety. Additionally, the program offers an activity for mothers and children to participate in together with therapeutic benefits. Staff was trained in issues of adoption and the program is theoretically grounded with constructs known to be effective. Therapists who are able to deal with these children and their families frequently do not accept Medicaid and often charge $65 per session or more. This would be a total of $1430 already. Children who have been in the system are often reluctant to engage in therapy and finding activities that are appropriate and useful is extremely difficult for families. Equest offers their regular riding program for children for $500 per semester; it meets once a week rather than twice. At the completion of this program, several families approached LSSS about financial support for continued enrollment at Equest. LSSS did not have funding for Equest but made the decision to allow families to use their respite financial allowance towards Equest tuition if they do not use it otherwise.

CHAPTER THREE

METHODOLOGY

Purpose of the Study

This project was an exploratory look at a Therapeutic Horsemanship Program designed for mothers and their children adopted from the foster care system. The purpose of this study was to assess the effectiveness of the program and learn about the impact of therapeutic horsemanship on this population. In particular, the study looked at whether or not participation in the program improved child behaviors and self-esteem and decreased parental stress. Open ended interviews and direct observation supplemented standardized measures to explore areas of benefit.

Human Subjects Protection

This project was approved by The University of Texas at Austin, Institutional Review Board for the Protection of Human Subjects (IRB# 2005-08-0006) on July 18, 2005, renewed on July 19, 2006 and is current until July 19, 2007. (See Appendix A for approval letter)

Research Design

This research study was exploratory in nature and looked at a therapeutic horsemanship program through the collection of qualitative and quantitative data. The study answered the three proposed research questions learned about what phenomenon may be occurring when children adopted from foster care participate in a Therapeutic Horsemanship Program with their mother. It was hypothesized that the program would be related to external child behaviors and child self-esteem and parenting stress.

A case study design with embedded cases as subunits of analysis is used. According to Yin (2003), there are five rationales for using a single-case case study design. The case should represent a critical case for testing a theory, represent and extreme or unique case, represent a typical case, be a revelatory case, or allow for a longitudinal case. A therapeutic horsemanship program meets the criteria for a revelatory case. After many informal discussions with Program Directors of large therapeutic horsemanship programs from across the country, the researcher learned that many programs are serving families with children adopted from foster care in their regular therapeutic horsemanship programs. This project creates the opportunity to observe and analyze this phenomenon in a program that focuses specifically on the needs of these families.

Single-case case studies can be holistic or embedded, that is to say, embedded cases may have multiple subunits of analysis (Yin, 2003). In this single-case case study, there are nine subunits of analysis. The nine children and their mothers who completed the program were each analyzed individually as subunits of the case, the therapeutic horsemanship program itself. The therapeutic horsemanship program was analyzed as the case of study and each mother-Child pair was analyzed as an embedded subunit.

Therapeutic Horsemanship Program – Equest

The North American Riding for the Handicapped Association (NARHA) was established in 1969 as a way of establishing standards and guidelines for riding centers offering therapeutic horsemanship programs for individuals with physical, cognitive and mental disabilities and disorders. NARHA has grown and now offers center accreditation

and instructor certification processes as well as strict standards and guidelines related to safety and service delivery. In addition, NARHA offers extensive insurance coverage for the activities offered by accredited centers.

Equest Therapeutic Horsemanship in Wylie, TX is one of the largest therapeutic riding centers in the United States and is a Premier Accredited Center with NARHA. Equest was established in 1981 and now serves between 200 and 250 riders weekly, depending on the season (www.equest.org). All therapeutic riding instructors at Equest must be certified through NARHA. The two instructors who taught the lessons for this project were both Master Level Riding Instructors; the highest level of certification that NARHA offers. Additional Instructors who served as assistants in the lessons were either Advanced or Master Level Instructors as well.

Sample and Sampling Procedures

Recruitment

Families were recruited by the Director and Assistant Director of Lutheran Social Services of the South (LSSS) in Mesquite, TX. LSSS contracts with the Texas Department of Family and Protective Services to provide post-adoption services to children adopted from foster care and their adoptive families in the greater Dallas area. Families contact LSSS when they are experiencing a need for services related to the adoption of a child from foster care. LSSS provides direct services and referrals for additional services to families who request assistance during any period after the finalization of an adoption from foster care. LSSS staff has willingly agreed to review their families and make appropriate referrals based on sample criteria for families to

participate in this dissertation project. LSSS has referred children to Equest and supported families in enrolling their children in therapeutic horsemanship in the past because of the positive affects that families have reported back to them.

The Director and Assistant Director determined which of their families who have requested services from LSSS met the study criteria and called those families. LSSS had a list of criteria as well as a list of important points about the study. In the event that LSSS was not certain if a family met the criteria, the researcher was consulted to make a determination. No family information was released to the researcher until the family attended an informational session or spoke directly with the researcher and agreed to participate in the study. Upon contacting the families, LSSS staff briefly described the study and explained why they were invited to participate.

Families were invited to an informational meeting during the initial phone contact by LSSS. Two information sessions were held to accommodate scheduling issues. Information sessions were held at Equest, the therapeutic riding center, by the researcher in order to allow the families the opportunity to see the riding facility. For families who were familiar with Equest and did not feel it is necessary to meet at the facility, the researcher discussed the study over the phone.

Sample Criteria

LSSS was given the following criteria to invite families.

- Single mothers or Couples with at least one female partner.
- Child was adopted from U.S. foster care system.
- Adoption must be final.

- Adopted child was 8-12 years of age.
- Adopted child was experiencing emotional or behavioral challenges that have not responded well to other treatment options.
- Adopted child did not have an extensive background in horseback riding.

This program focused on the mother-child relationship. Mothers are traditionally the parent who deals with the behavioral, educational and emotional challenges of the children and are of the ones to experience the most negative behaviors. Although the father relationship is critical for children, this program was designed for one parent and one child. The time created for that relationship to develop through the grooming and tacking and through the arena work was best suited to one parent and given the additional parenting stress that many mother faced it was determined that mothers would be chosen for this program.

Families adopting children through private arrangement or through international programs often experience the same challenges that families who have adopted children from foster care do. The current focus on adoption of children from foster care in the United States as well as the lower socioeconomic status of families who often adopt from foster creates a need for post-adoption services that meet the needs of these types of adoptive families.

Enrollment

The following forms were required for the families that participated in the study: some by the researcher and some by Equest. All forms were filled out prior to the beginning of each session.

- Consent Form, signed by adoptive mother (Appendix B)
- Assent From, signed by adopted Child (Appendix C)
- Contact Form and Demographic Form (Appendix D)
- Equest Required Forms (application, medical release, liability release)

Obtaining Informed Consent

Informed consent was obtained by the researcher during individual meetings with each mother-Child pair. Meetings were arranged at the family's convenience and usually occurred at their home. The researcher spoke with the mother ahead of time on the phone to answer detailed questions or respond to individual concerns. During the face-to-face visit, the researcher talked with the mother and child together about what was involved and what agreeing to be in a research project meant. The researcher reviewed the consent form in detail with the mothers and then they were given time to read it thoroughly on their own before signing it. The children were then asked if they wanted to participate and read the content of the assent form. Mothers and children were each given a copy of their consent and assent forms to keep for their records. Mothers and children were both given a chance to ask any questions they had.

After informed consent was obtained, the initial interviews were conducted and the initial measures were taken. For some mothers, time was limited so they completed their forms after the meeting and sent them in.

Sample – Selection and Attrition

Each group started with six riders. The fall group dropped to five riders after one mother determined that she could not spend two evenings away from the rest of her family. She was a single mother with three adopted children and twin two-year old foster children. The researcher tried to accommodate her need by identifying a volunteer mentor to take the mother's role for the Tuesday class thereby only requiring her to be at Equest with her daughter for the Thursday evening class. This was tried for one week after which the mother chose to withdraw from the program.

In addition, one mother-child pair withdrew half-way through the program. The mother changed jobs which required her to work evenings and she could no longer participate. The researcher offered for the child to continue with a volunteer mentor but the mother declined this option. Due to the limited data collected from this mother-Child pair, they are not included in the analysis. Data from four families from the fall group are included in this analysis.

Due to the attrition problems with the fall group, Equest allowed the spring group to enroll up to seven mother-Child pairs. Despite careful screening, one family dropped out the day before the first class of the spring session. This family had two adopted children who were half siblings. The youngest child (age 2) was doing very well but the oldest child (age 10) was struggling with behaviors in school and at home. The parents

were not seeking sufficient levels of support and pulled the child out of the Equest program before it started as punishment for poor performance in school. The researcher shared her concerns with the mother and recommended that she contact LSSS to learn about ways they might be able to help. The mother did not seem receptive, however, several months later LSSS informed the researcher that the mother had sought help and LSSS was now providing services to the family. The last minute withdrawal of this family left a spot open without time for new family recruitment. The decision was made to allow one family from the fall to continue. Of the four families from the fall group, two were interested in continuing. A coin was flipped to determine which family would get the available spot.

After the spring program started, one of the mothers began having difficulty with her allergies. The mother had shared her concern during the screening process but indicated that she would see her allergist and go back on her allergy medication and felt that she would be able to manage her allergies. Unfortunately the barn environment made it impossible for her to manage her allergies. The staff at Equest worked with her to allow her to stay inside while her child and a volunteer mentor groomed and tacked the horses and provided a mask to wear to help manage the dust. After two weeks the mother called and said she had to withdrawal. She was very distressed about this as she noted that her son had been talking about the program every day since it started. She said it was very rare for him to talk positively about his involvement in anything. He felt that he was going to be success at riding which was an unusual sentiment for this child to express about any activity. She contacted LSSS and asked them to hold a spot for her son in the

LSSS summer camp at Equest and promised her son that he would be able to ride in the summer camp program. She is very hopeful that future research that includes fathers and children will be available as her husband had offered to take her place and was very interested in a program where he could spend time learning something new in the outdoors with his oldest son. The final sample for the spring group was six mother-child pairs.

Study Sample

The sample for this study included nine children adopted from foster care. One of the children was the only child living in the home while all other eight children lived with adoptive and biological siblings. The mothers reported the following challenges with their children: aggression, oppositional behavior, inattention, poor social skills, poor communication and strained mother-child relationships. Table 3.3 shows the diagnoses and the number of children in the sample with each disorder.

Table 3.1
Sample Mental Health and Educational Diagnoses

Diagnosis	N
ADHD	3
ADD	2
Developmental Delay	1
Speech Problems / Language Processing Delays	1
Depression	2
Anxiety	2
Attachment Disorder	1
Emotionally Disturbed	2
Oppositional Defiant Disorder	1
Bi-Polar Disorder	2
Selective Mutism	2
Dyslexia	1
Sensory Integration Dysfunction	2

Each case is described in the following nine boxes. Background Information is given about the family and the child including demographics, diagnoses and previous treatments. These boxes can be used as a reference for each case in chapter five to refer to specific details about the cases.

Case #1 - Background Information

Cathy was a 13 year old female at the time she participated in the riding program (spring, 2006). She has been diagnosed with Sever Mood Disorder (they are assessing for Bi-Polar), and Oppositional Defiance Disorder. Her adoptive parents are both employed and have 2 adopted children. Cathy's adoptive sister has multiple physical and cognitive disabilities (private adoption) and has been riding at Equest for several years. The adoptive parents are Caucasian and both adopted children are Caucasian. Cathy was removed from her biological family at 2 days old due to her biological parents' inability to care for her. She was placed with the adoptive family at eight months and adopted at 14 months. The quality of her foster care placement (one placement prior to adoptive placement) was very good. Cathy maintains some contact with birth family including birth-mother, Grandmother, and two of her three birth siblings. Contact with her birth-mother has been limited. The adoptive mother is supportive of the contact but concerned about whether or not Cathy's behavior can improve with the instability of the birth family.

Cathy participated in the LSSS-Equest summer camp the summer prior to her participating in this program. She enjoyed camp and her mother reported it had a positive effect on her self-esteem. She has been in counseling for four years for her anger control with "somewhat successful" outcomes. She participated in bio-feedback for four months prior to this program to address her behavior problems and experienced "somewhat successful" results. She also participated in church youth, church choir, girl scouts, basketball, gymnastics, baseball, and basketball at varying times over the past few years.

Cathy has been diagnosed with Oppositional Defiant Disorder and Mood Disorder (probably B-Polar Disorder).

Cathy has behavioral and emotional challenges. The three primary areas of difficulty with Cathy, as reported by her mother, are:

1) controlling her anger,
2) being responsible, and
3) accepting "no" as an answer sometimes.

The mother reports that the anger problems often result is full-blown meltdowns at home and angry, oppositional behavior. Meltdowns included screaming, tantrums and extremely oppositional behavior.

Cathy's family has several cats and a dog all of whom she takes care of and interacts well with. The mother reports that she is very good with the animals and always cared for them very well and often over-protects them from her sister who is sometimes rough with them due to her disabilities. This child has spent many years out at Equest while her sister participated in the program for her physical and cognitive disabilities. Her mother reported that she did not know that this daughter would be eligible for Equest based only on her emotional and behavioral challenges.

Case #2 - Background Information

Nancy was a 13 year old female at the time she participated in the riding program (fall, 2005). Her adoptive parents (Caucasian) are both employed and have 2 biological children and 1 adopted child (Caucasian). The oldest biological child was married and pregnant with her first child during the time when Nancy participated in the program. The mother reported that the oldest biological child did not want her to adopt and was unhappy with her mother agreeing to enroll in the riding program with her. Nancy was removed from her biological family at 8 years old due to ongoing sexual and physical abuse. The adoptive family saw a "Wednesday's Child" ad in an out-of-state newspaper while they were visiting family and later pursued the adoptive placement. Nancy was placed at age 12 and the adoption was finalized at age 13. The quality of her foster care placements (seven placements prior to adoptive placement) was average. Nancy maintains some contact with birth siblings. She has two sisters and maintains limited phone contact. Her sisters are adopted together and their adoptive family does not support contact with this child due to a concern about her negative influence on the other sisters. Nancy's adoptive mother would like more contact with the siblings but continually meets resistance. There is no contact with any other birth family due to the extent of the abuse.

Nancy has emotional challenges but no former diagnoses.

Nancy participated in the LSSS-Equest summer camp the summer prior to her participating in this program. Her mother reported that she enjoyed the camp very much. Nancy has also been in therapy since she was placed for adoption. The mother reports that she does not share her problems with the therapist and this is of concern to her. This child also participates in girl scouts, piano lessons, and after schools sports.

Nancy has emotional challenges. The two primary areas of difficulty with Nancy, as reported by her mother, are:

1) communication between child and adoptive mother, and

2) building trust between child and adoptive mother.

The mother reports that her adopted daughter has problems with taking things from around the house that do not belong to her but that this was improving. She attends a small school and is reportedly doing well but does not seem to make friends; rather she socializes with everyone.

Nancy's family has several dogs and cats all of whom the child takes care of and interacts appropriately. The mother reports that she often seems to enjoy being with the animals more than her.

Case #3 - Background Information

Jon was a 9 year old male at the time he participated in the riding program (fall, 2005). His adoptive parents are both employed and have 3 adopted children (he is the oldest of the three children and is a half-sibling to his younger sisters who are full siblings). The adoptive parents are Caucasian and the three children are African American. Jon was removed from his biological family at 3.5 years old due to parental neglect. He was placed with the adoptive family, initially as a foster child, at the time of removal and adopted less than a year later. He was never placed with any other family. Jon has no contact with birth family other than the two younger half-siblings that were adopted with him. He has one other older birth-sibling who was adopted by another family and with whom there is no contact.

Jon has been involved in play therapy for four-five years prior to this program to decrease stress which has been helpful for him. He has participated in therapeutic summer camp for two summers that his mother reports have been helpful. He also participates in soccer, basketball, and cub scouts.

This child has been diagnosed with Reactive Attachment Disorder, Depression and Anxiety Disorder. The three primary areas of difficulty with Jon, as reported by her mother, are:

1) defiance,
2) physical violence, and
3) attachment problems.

The mother reports that Jon has physically injured his younger sisters and been violent towards her. He is defiant with behavior and has encopresis and enuresis. She reports that his younger sisters are sometimes scared of him and their behavior is getting worse.

Jon's family has a dog. The mother reports that his relationship with the dog is good to fair and that he has "hit the dog before." This child had not been at Equest prior to this program.

Case #4 - Background Information

Tammy was an 8 year old female at the time she participated in the riding program (spring, 2006). Her adoptive parents are both employed and have 3 adopted children (she is the middle child of the three children and is a half-sibling to her older brother, Jon in this study, and a full sibling to her younger sister). The adoptive parents are Caucasian and the three children are African American. Tammy was removed from her biological family at 1 week old due to parental neglect. She was placed with the adoptive family, initially as a foster child, at the time of removal and the adoption was finalized less than a year later. She was never placed with any other family. Tammy has no contact with birth family other than the two younger half-siblings that were adopted

with him. There is one other older sibling, adopted by another family, with whom there is no contact.

Tammy has been diagnosed with selective mutism, anxiety and dyslexia.

Tammy has been in play therapy for four-five years prior to the riding program to decrease her anxiety. This is somewhat helpful for her. She has also been involved with speech therapy which has had limited success. Tammy also participates in Brownies, soccer, and basketball for socialization and physical exercise.

Tammy has been diagnosed with anxiety disorder, depression and dyslexia. The four primary areas of difficulty with Tammy, as reported by her mother, are:

1) self-confidence,
2) academics,
3) depression, and
4) selective mutism.

The mother reports that Tammy withdrawals into herself at school, home, and in new situations. She does not participate in school and is falling behind. Tammy was diagnosed with dyslexia the week prior to starting the riding program. The school did begin services for dyslexia during the course of the riding program.

Tammy's family has a dog. Her mother reports that she is affectionate with the dog and has never been abusive towards him.

Case #5 - Background Information

David was a 9 year old male at the time he participated in the riding program (fall, 2005 and spring, 2006). His adoptive father is employed and his adoptive mother is primarily a stay-at-home mom who occasionally does temp work at his school. The adoptive parents (Caucasian) have four adopted children; two boys (Caucasian) and two girls (Hispanic). David's older brother has Fetal Alcohol Syndrome and ADHD and his younger sisters have no special needs. David was removed from his biological family at 3 weeks old due to physical abuse by his birth father. He was placed with the adoptive family, initially as a foster child, at the time of removal and the adoption was finalized a year later. He was never placed with any other family. David has regular contact with his birth Grandparents and one birth Great Grandparent. The mother reports these relationships are very positive. David has birth siblings with whom there is no contact. He was adopted from out of state.

David has been in individual and family counseling on and off for several years. His mother reports that the therapist terminated recently because "he no longer needed therapy" despite the mother reporting that his behavior is extremely oppositional.

This child has been diagnosed with ADHD and Bi-polar. The three primary areas of difficulty with David, as reported by her mother, are:

1) arguing,
2) fighting and physical aggression, and
3) oppositional behavior.

The mother reports that David has hit her and been aggressive towards his younger sisters. He engages in full-blown meltdowns during which he screams and lashes out

physically. David was sexually abused in the adoptive parents' home while he was still a foster child by another foster child. The perpetrating child was removed and the mother reported that this marked a turn in their relationship.

David's family has dogs, fish, and hamsters. His mother reports that he has a positive relationship with all of the animals now but had once pushed the small dog off the table and broke its' leg. She feels this was not intentional but that David was being aggressive and not aware of his actions.

Case #6 - Background Information

Kelly was an 8 year old female at the time she participated in the riding program (spring, 2006). Her adoptive parents (Caucasian) are both employed and have 4 adopted children (Caucasian). The oldest child was grown and moved out of the home at the time of this program. Kelly was removed from her biological family at 1 year old due to parental neglect. Kelly was placed with the adoptive family at removal and adopted one year later. She was never placed with another family. Kelly has one brother who was adopted with her and three brothers who live with their birth-Father. There is some contact with the three brothers.

Kelly has been in Occupational therapy and speech therapy for four years prior to the riding program to address her sensory integration and speech delay challenges. The mother reports that both types of therapy are effective. Kelly also participates in gymnastics, brownies, and she likes to watch soccer.

Kelly has been diagnosed with sensory integration disorder and language processing problems. The two primary areas of difficulty with Kelly, as reported by her mother, are:

1) meltdowns, and
2) communication.

The mother reports that Kelly has physical meltdowns when she is over stimulated or unable to process a situation, this happens frequently. The meltdowns include crying, screaming, and hair pulling (self).

Kelly's family has a small dog with whom Kelly is gentle and caring.

Case #7 - Background Information

Helen was an 11 year old female at the time she participated in the riding program (spring, 2006). Her adoptive parents (Caucasian) are both employed and have 3 biological children and 4 adopted children (Caucasian). At the time of the riding program, four children lived in the home and three were grown and moved out. Helen was removed from her biological family two weeks old due to birth-mother abandonment. Helen had one foster placement prior to her adoptive placement which was excellent. Helen was placed with this adoptive family because they had adopted her older brother fourteen years before Helen's birth. Her adoption was finalized when she was two years old. Helen has a second brother who was adopted by another family and whose whereabouts are unknown. There is no ongoing contact with any other birth family.

Helen had participated in a sensory integration program at Equest several years prior to this program. Her mother reported that this was helpful to calm her down. She has not continued with Equest because of the cost. Helen has also participated in basketball, T-ball, swimming, soccer, cheerleading, dance, and gymnastics. These activities have been successful but Helen often needs more individualized instruction than large group activities can offer her. In addition, some activities require a higher complexity of skill than she could handle.

Helen has been diagnosed with ADHD and Bi-polar. She has sensory integration issues and experienced prenatal drug exposure. The three primary areas of difficulty with Helen, as reported by her mother, are:

1) dealing with hyperactivity,
2) unstable moods, impulsivity, and
3) interactions with peers and siblings.

Helen's mother reports that she frequently wakes up screaming in the morning. She argues with her siblings and has inappropriate peer relationships when she has peer relationships at all. She can be taken advantage of by more savvy peers.

Helen's family has several dogs and cats. Her mother reports that she tried to have "sturdy" dogs that can handle Helen's impulsivity and hyperactivity. She reports that Helen loves the dogs but sometimes scares them inadvertently when she is really hyperactive.

Case #8 - Background Information

Jason was an 8 year old male at the time he participated in the riding program (spring, 2006). The adoptive parents are both employed and (Caucasian) have three adopted children (Caucasian). Jason parents had previously adopted two teenage girls. The girls had a great deal of difficulty adjusting to the adoption, were in RTC and eventually ran away. They do not currently know the whereabouts of the two girls. Jason was removed from his biological family at 13 months old due to physical abuse and neglect. He was placed with the adoptive family, initially as a foster child, at the time of removal and the adoption was finalized approximately two years later. He was never placed with any other family. Jason does not have any contact with birth family. The adoptive family is not aware of any birth siblings.

Jason has participated in occupational therapy to address sensory integration issues and play therapy to address anger control and bonding problems. His mother reports that the OT was successful and the Play Therapy was somewhat successful. At the time of enrollment in the riding program he was involved in a social skills group to improve peer interaction. Jason also participates in Taekwondo for socialization and physical activity.

This child has been diagnosed with ADHD and sensory integration issues. He has impulse control problems, frustrates easily, and is quick to anger. The three primary areas of difficulty with Jason, as reported by her mother, are:

1) lack of respect for parents and other adults,
2) lack of motivation to try and learn new skills, and

3) excessive dawdling in most routine activities.

Jason's mother reports that he is not willing to try and learn new skills. Prior to beginning the riding program she was concerned that he would not be willing to stick with learning a new skill.

Jason's family has a dog and fish. He cares for the fish and likes to play and interact with the dog. He is very appropriate and responsible with the animals.

Case #9- Background Information

Jeff was a 13 year old male at the time he participated in the riding program (fall, 2005). The adoptive parents (Caucasian) are both employed and have six children (four adopted, two biological), Jeff is the third oldest. Jeff's oldest brother (full birth-sibling) has anger management issues and was in RTC at the time of the riding program. His older sister has a history of abuse and his younger siblings have vision or allergies issues. Jeff was removed from his biological family at 18 months old due to physical abuse, neglect and starvation. He was placed with his adoptive family at 26 months and the adoption was finalized six months later. Jeff was in two foster placements, the second of which was good. Reunification attempts were made twice while Jeff was in foster care; the birth-mother continued with patterns of abuse and neglect during both attempts. Jeff does not have contact with any birth family other than the brother he was adopted with. While that brother is in RTC, Jeff has limited contact with him and his mother reports that this is very disturbing to Jeff.

Jeff's diagnoses include ADD, developmental delays, and speech problems.

Jeff was in speech therapy for three years which somewhat successfully addressed his vocabulary and word usage. He was in play therapy for a short time which successfully improved his interpersonal skills.

This child has been diagnosed with ADD and development delays. His mother reported that he has the potential for attachment disorder. The three primary areas of difficulty with Jeff, as reported by her mother, are:

1) anger management,

2) peer interaction and age appropriate social skills, and

3) lying about not completing work or tasks.

Jeff's mother reports that she was in nursing school when they adopted Jeff and her husband spent most of the time with him when he was young. She is concerned because their relationship is so strained. They verbally argue frequently and she reports not having positive feelings about their relationship.

Jeff's family has a ranch with goats, chickens, dogs, cats and rabbits. He is good with all of the animals but resentful of the goats because they take more work to care for. He can be rough with the goats due to the resentment but never intentionally cruel.

Research Questions and Hypotheses

1. Question: Is program participation related to an improvement in the child's externalizing behaviors?

   Hypothesis: Participating in the program is related to child external behavior.

2. Question: Is program participation related to an increase in the child's self-esteem?
   Hypothesis: Participating in the program is related to the child's level of self esteem.
3. Question: Is program participation related to a decrease in the level of parenting stress?
   Hypothesis: Participating in the program is related to the mother's parenting stress.

Variables

Independent Variable: Therapeutic Horsemanship Program

The independent variable is the Therapeutic Horsemanship Program. The program curriculum will be the same for each group. The program ran for eleven weeks, with two sessions per week for a total of twenty-two sessions. There were occasional breaks at Equest which stretched the program out over the course of 13 weeks. During each group (the fall and the spring) there is an extra-curricular activity. In the fall there is a trail-ride fundraiser, and in the spring there is a horse show. Both events are enormously popular with riders and families at Equest and will be available for the study participants. They were not required as part of the study, and any costs associated with the events were not be covered by the study. The fall session trail-ride fundraiser was attended by two of the participants and the spring session horse show was attended by five participants.

The program was delivered in fall, 2005 and spring, 2006 at the Equest Therapeutic Horsemanship which is located in Wylie, TX. Participants lived between fifteen minutes and one hour away from Equest. Two families in the spring group

carpooled together adding extra time for the mothers to talk and for the children to spend together.

Intervention Training Components

There were three training components that were required to successfully implement this Therapeutic Horsemanship Program. The three groups of people who needed to be trained were: Riding Instructors, volunteers and mothers. The following sections describe each type of training that was given.

1. Therapeutic Riding Instructor Training

All riding instructors at Equest are certified by the North American Riding for the Handicapped (NARHA). Instructors who taught the sessions for this project were Master level instructors. Master level is the highest level of certification in the therapeutic riding industry and requires proficiency in teaching, riding skills, as well as a working knowledge of physical and mental health disabilities and disorders. Most riders who currently take lessons at Equest have physical or cognitive disabilities. The Riding Instructor Training was taught by the researcher and covered the following areas:

- child welfare system
- Foster care and special needs adoption
- Emotional and Behavioral challenges
- Human-Animal Bond Literature
- Program Curriculum

The training was taught over the course of two days. The first day covered issues related to child welfare and adoptions. The second day reviewed the Program

Curriculum in detail. Equest riding lessons are generally designed by the Instructor from week to week with an overall goal for the session. This program was designed to be implemented the same way for Group A (fall session) as for Group B (spring session) so a significant amount of time was spent reviewing the Curriculum and making any necessary changes based on Instructor feedback. A treatment Manual was given to each instructor which included segments of the literature review and methodology from chapters two and three as well additional handouts on issues in adoption and foster care and mental health diagnoses. All Equest instructors attended this training. One instructor was assigned to teach each session of the Therapeutic Horsemanship Program. Other instructors served as assistants during both sessions to provide one-on-one help for children needing extra instruction and to provide additional safety resources.

2. Special Volunteer Training

Equest is able to allow riders with disabilities to ride because of the willingness of volunteers. Equest volunteers are present for every class that is taught and are trained in handling the horses and working with the riders. Ongoing educational enrichment programs are available to volunteers who want to learn more about horses or people with disabilities. Lili Kellogg, Program Director at Equest in consultation with the Volunteer Coordinator invited volunteers to participate in this project based on their experience, willingness to participate in this extensive program, as well as their ability to follow a new protocol. These volunteers were required to attend the first day of the instructor training. At the conclusion of that day the volunteers participated in a one hour meeting further reviewing their new roles.

The major change in role for the volunteers was their duties towards the riders. In a traditional Equest lesson, a volunteer is assigned to one rider and they are responsible for getting that child's horse ready and ensuring the child's safety from the time they arrive at Equest until they leave. Parents generally congregate in the waiting room or viewing area and are not directly involved in the lesson. For this program, the mother acted in the traditional role of volunteer and the "special volunteers" were assigned the task of supporting the Riding Instructor for the purposes of additional safety. Each mother-child team was assigned a "special volunteer" to support them in the process of learning how to work with horses. They assisted with grooming and tacking as needed and were present during the lessons to provide any assistance that the Instructor might need.

3. Parent (Volunteer) Training

The mothers involved in this project attended a regular volunteer training that all Equest Volunteers participate in. This training goes over how to groom and tack the horses as well as safety protocols in place at Equest. They also learned how to assist a rider in mounting and dismounting their horse.

Program Description

The program consisted of twenty-two riding lessons. Each lesson lasted for one hour with fifteen minutes to get the horse ready and fifteen minutes to put the horse away after the lesson for a total of 1 hour and 30 minutes. The following outline (Table 3.5) gives an overview of the target goals and activities for each week of lessons.

The program curriculum is left with a lot of room for the Instructor to make decisions based on the needs of the group. Therapeutic riding lessons are the same as any riding lessons in that the Instructor can only move the group along at a pace the group can keep up with. The overall goal is skill development so the Rising Instructor must have control of the lessons plans and must be able to create and change lessons plans as she needs to in order to facilitate learning. This creates a challenge for treatment fidelity. The Riding Instructors were matched on experience, gender, age, and having parented in an effort to minimize this problem.

Table 3.2
Program Outline

Week 1
➢ Introduction to Riding Center and Staff ➢ Learn about Riding Center rules ➢ Horse Choice Activity – outdoor arena – children and mothers are able to observe 10-12 horses loose in the arena. They walk around the outside of the arena and observe the horse. Children report which horse they are "drawn" to and why. Children are assigned the horse they choose. Children had to pick their top three horses in the event that more than one picked the same horse. All children got their first choice in both sessions. One child had to be changed after the first week due to health concerns with the horse she chose. She was given the choice of two new horses. ➢ Initial Intro to horse handling / horse behavior ➢ Horse handling and grooming demonstration in the arena ➢ Practice handling and grooming horse ➢ Homework – mother and Child to discuss horse's background – get info off website and think about how the horse adjusted to Equest and what his/her life used to be and what it is like now – be prepared to talk about their horse and tell the rest of the class what they learned. Decide on a "team" name and label folder with team name.
Week 2
➢ Horse Handling – walking, grooming, tacking ➢ Horse Skills – mount, halt, walk, steer ➢ Horse Behavior – body language, communication skills, horse-horse communication and horse-human communication

- Horse demonstration – volunteer brings a horse into the arena for Instructor to use when discussing body language
- Horse Observation – discussion of different horse behavior, different human behavior – communication!
- Homework – mother and child to work together to draw their horse expressing different emotions and when each of those emotions might get expressed and how a human should react to each of those expressions. Handout given with pictures of different horse behavior. In class discussion of assignment and how human body language is the same or different from horse body language.

Week 3 and 4

- Horse Skills – walking and steering independently, traffic management, making circles and reversing. Introduce trotting.
- Horse Demonstration – Instructor brings in an assistant who is on a horse to demonstrate trotting.
- Continued work on horse behavior and communication. Discussion of different horses being ridden in the group and how they interact/ socialize.
- Introduce additional horse handling/caring skills – feeding, cleaning, etc – the importance of caring for the horse – the dependency the horse has on humans and the trust they have that humans will properly care for them.
- Homework – mother and Child to watch a film about horses and be prepared to discuss what film was about, what they liked about the movie, what they learned about the horses or themselves from watching the movie and whether they would recommend the movie to others in the group.

Week 5 and 6

- Horse Skills – continued work on controlling horse independently, and traffic management. Introduced posting trot to children who were ready and independent trot for children who were ready.
- Horse Demonstration – Instructor brought in an assistant who is on a horse to demonstrate difference between sitting trot and posting trot.
- Additional Horse Skills – learned to back the horse, 'Around the World' to work on balance. Game to see who can do 'Around the World' the fastest. 'Around the World' is an activity where the rider swivels around in the saddle to face the right side of the horse then the back then the left and returning to facing forward.
- Homework – handouts were given on colors, breeds, parts of horse and parts of tack to practice learning different names and words used with horseback riding.

Week 7 and 8

- Horse Change Week
- Instructor assigned each child to a new horse based on the riding skill needs of the child. At the end of the week, each child got to decide if they want to stay on their new horse for the remainder of the session or go back to their original horse. Each child shared reason behind their choice with the group.

- Horse Skill – child identified differences between their original horse and the new horse; color, behavior, attitude, personality, likes/dislikes. Learned to ride the new horse. Children who were ready to learn to canter are introduced this skill.
- Homework – No homework! The fall and spring semesters at school are getting busy by this point of the program so no home-work was assigned.

Week 9 and 10

- Focus on trust between and within mother-Child-Horse team.
- Mothers led horses while children's eyes were closed while riding. Mother must communicate to child where they are going so that the child can maintain balance.
- Mothers led horse through obstacle course while child's eyes are open while riding. Mother must take directions from child about where to go and how to turn the horse.
- Horse Skill – children learned to navigate their horse through an obstacle course.
- Homework – Parts of the horse and parts of the tack worksheet. Practiced to see how many parts the mother-child team can remember together. Discussion and filled in the missing answers during the next class.

Week 11

- Celebrate!!!!
- Horse Show with ribbons and awards
- Time for good-byes to horses. Discussion of how to say good-bye and what that meant.
- Homework – brought a Holiday card for their horse on the last class day – mother and Child should have made it together.

Dependent Variables

Child Behavior

Child behaviors in need of improvement are those maladaptive behaviors that are creating stress and tension within the family and making adjustment to adoption difficult. These behaviors may include but are not limited to the following;

- unwillingness to follow instructions,
- unwillingness to follow house rules regarding chores, etc.,
- aggression towards parents, siblings, or peers,
- destruction of property,

- acting out, arguing, & fighting

Child behavior was measured through four sources in this study. The Child Behavior Checklist was administered before and after the intervention. Pre-test and post-test scores were analyzed on the Competency, Problem, and Syndrome scales. In addition, child behavior was assessed through mother and Instructor Interviews and researcher observation.

Child Self-Esteem

Child's self-esteem is based on how the child feels about him or herself. Feelings may include but are not limited to:

- feeling like they are worthy
- feeling like they have friends
- feeling like they are good at activities

Self-esteem was measured through four sources in this study. The Culture Free Self-Esteem Inventory-3 was administered before and after the intervention. Pre-test and post-test scores were analyzed on the Global Self-Esteem Quotient, the four self-esteem subscales: academic, general, parental/home and social. In addition, self-esteem was assessed through mother and Instructor Interviews and researcher observation.

Parental Stress

Parental Stress related to parenting is related to how the parent feels about her ability to parent and her feelings of how she is doing in parenting the adopted child. Feelings of stress may include but are not limited to the following:

- feeling like she can't handle things very well,

- feeling like her child doesn't like her,
- feeling like she is spending more time dealing with child's needs than she had planned,
- feeling like she is less interesting than she used to be.

Parenting stress was measured through three sources in this study. The Parenting Stress Index – Short Form was administered before and after the intervention. Pre-test and post-test scores were analyzed on the Total Stress as well as the three stress subscales: difficult child, parent-child dysfunctional interaction and parental distress. In addition, parenting stress was assessed through mother Interviews and researcher observation.

Data Collection

Child Behavior Checklist (CBCL)

The CBCL is a mother report questionnaire. It has 103 items to be scored on a scale of one to three and eight areas to provide further information about the child. It takes approximately 30 minutes to fill out. The mothers were asked to fill out the CBCL before the program and again after the program. The CBCL was chosen for its excellent validity and reliability as well as it's appropriateness for the project. Families have often been exposed to the measure in the school system or during assessments of their child. It is also easy to administer and not time-consuming for the mothers to fill out. Hilsenroth and Segal (2004) report strong reliability coefficients when using the CBCL with girls and boys. On the internalizing, externalizing, and total problem the coefficients when a referred group of children aged 4-11 was matched to a non-referred group aged 4-11 were .90, .93, and .96 respectively.

Achenbach & Rescorla (2001) report extensive statistical data on the reliability of the Child Behavior Checklist (CBCL) in the Manual for the ASEBA School-Age Forms and Profiles. Inter-interviewer and test-retest reliabilities were supported by correlations ranging from .93 to 1.00 for the mean scores obtained by different interviewers for the CBCL during two meetings a week apart. The test-re-test reliability on the Competence and Problems scales was .90. The internal consistency of the competence scales is reported to be supported by alpha coefficients of .63 to .79 and for the problems scales, .78 to .97. The syndrome scales were "derived from factor analyses of the correlations among ASEBA items" (p.100).

Achenbach & Rescorla (2001) also report extensive statistical data on the validity of the Child Behavior Checklist (CBCL) in the Manual for the ASEBA School-Age Forms and Profiles. The construct validity of the CBCL was supported by findings that all items discriminated significantly between demographics of referred and non-referred children at the alpha level p=.01. The criterion-related validity was established through multiple regressions, odds ratios and discriminate analysis. All of these analyses were statistically significant in discriminating between referred and non-referred children. The construct validity has been support through "significant associations with analogous scales of other instruments and with DSM criteria, by cross-cultural replications of syndromes, by genetic and biochemical findings, and by predications of long-term outcomes" (p.135). The CBCL has been normed on referred and non-referred children. See Appendix E for a sample copy of CBCL.

Culture Free Self-Esteem Inventory-3 (CFSEI-3)

The CFSEI-3 is a self report questionnaire with sixty-four 'yes or no' questions. The children can self report or have the items read to him or her. The children completed this questionnaire before and after the Program. Some of the younger children asked to have the scale read to them. Their readings comprehension was checked by the researcher asking them to explain what some of the questions meant. The intermediate inventory was used which is appropriate for children age 9-12. The Inventory results in a Global Self-Esteem Quotient (GSEQ) as well as four subscales: Academic, General, Parental/Home and Social. The GSEQ is the most reliable scale and is the one that statistics are available for.

Battle (2002) reports statistical data for the Culture Free Self-Esteem Inventory-3 in the CFSEI-3 Examiner's Manual. He reports reliability coefficients for scorer differences to range from .98 to .99. In this study, all of the measures were scored by the researcher and checked several days later. Coefficient alphas were reported on internal consistency reliability to round up to .80 indicating good reliability. The standard error of measurement quotient was reported to be 5. Coefficient alphas are also reported for a variety of different groups to ensure that bias relative to gender, race and ethnicity are introduced. The coefficient alphas reported for these various groups are equally reliable. The CFSEI-3 has been normed on clinical and non-clinical children. See Appendix F for a copy of the CFSEI-3.

Parental Stress Index – Short Form (PSI-SF)

The PSI-SF is a self-report questionnaire that was developed based on the long form and is used to identify parenting stress related to parent and child characteristics. The PSI-SF consists of 36 items and results in a Total Stress Score from three scales: Parental Distress, Parent-Child Dysfunctional Interaction and Difficult Child. Test-retest reliability ranges from .61 for the child domain to .91 for the parent domain (Abidin, 1983). Alpha reliabilities of .79 (Parental Distress), .80 (Parent-Child Dysfunctional Interaction), .78 (Difficult Child) and .80 (Total Stress) were reported on a Head Start sample of 103 parents (Roggman, Moe, Hart, Forthun, 1994 as cited in Abidin, 1983). The PSI has been normed on both clinical non-clinical samples of parents.

The mothers were asked to fill out the PSI-SF before and after the Program. See Appendix G for a sample copy of PSI.

Mid-term Evaluation Surveys

Mothers completed written mid-term evaluation surveys during each session. The questions were similar to the questions later in asked in the post-intervention interview. See Appendix H for a copy of the mid-term evaluation survey.

Scaled data

After the completion of the fall session, the researcher was interested in gaining more a more complete understanding of possible changes that may occur with the children. During the spring group, the mothers were asked to rank on a Likert scale of 1-10 the level of behavior of their child. The behaviors used were the topic challenges that the mother identified in the initial interview and each survey was specific to that mother and child. This type of data was only collected from the spring session mothers.

Event Log

Upon completion of the CBCL and PSI the mother was asked to fill out an event log. The event log was an open ended set of questions asking about anything that has recently occurred that may have contributed to a change in her child's behavior. In the spring session, an event log was attached to each set of scaled questions that the mothers were asked to fill out.

Interviews - mother

Mothers participating in the both session were interviewed before and after the session that they were enrolled in. The fall session mothers were interviewed in August, 2005 and December, 2005. The spring session mothers were interviewed in January, 2006 and May, 2006. Each child was interviewed at the completion of their session but this data turned out to yield little data. The observation and discussions at Equest were much more telling of what the child was experiencing; the interviews were full of yes-no answers and a lot of 'I don't know' responses. The children were much more open and engaging while at the riding center. Mother interviews asked questions related to issues and concerns in her relationship with her child, expectations of the program (prior to intervention), and assessment of the program and her relationship with her child (post-intervention). The interviews were open-ended. For a list of guiding questions, see Appendix I.

Interviews – Instructors

Instructor Interviews were less structured than the mother Interviews. After each lesson, the Instructor and researcher sat down to debrief the lesson. During these meetings, the Instructors shared their thoughts, perceptions and observations about how the Program was going. The researcher answered any questions the Instructors had and asked questions about their observations. This information was later recorded in field notes by the researcher.

Researcher Observation

The researcher was present throughout the entirety of the Program for both sessions. Observations were made from the time the children and mothers arrived at Equest until they left. During the time the children and mothers were getting their horses ready, the researcher would walk from stall to stall to observe and talk with the participants. If a mother or child was having difficulty with a horse or had questions about the horses or about Equest and a volunteer or Instructor was not present, the researcher would assist or answer any questions. During the riding lesson the researcher monitored the video camera and observed the lessons from outside of the arena. Field notes were taken at the completion of each lesson. Focus was paid to child behavior, child self-esteem, mother stress, mother-child interaction and skill development.

Video-taping

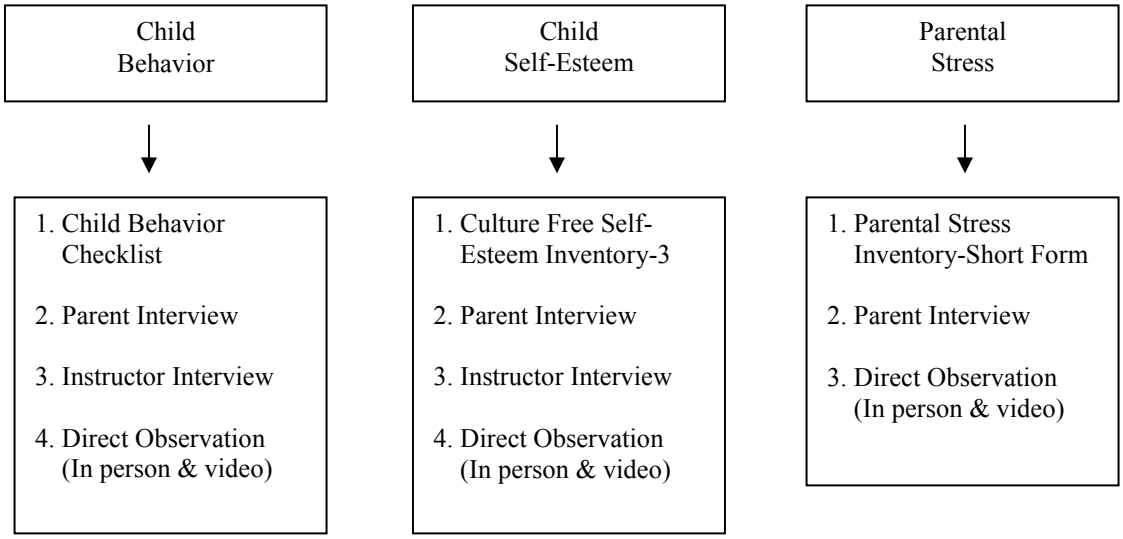
All riding sessions throughout the duration of this project were video-taped. Due to the large arenas that were used for the riding lessons, the quality of the videos is limited. The time that the children and their mothers spent grooming and tacking their

horses and then un-tacking and putting away their horses was not video-taped. The barn at Equest is large and has two long aisles. Horses are groomed and tacked in their stalls which made taping the group not conducive. Initially the researcher tried to video-tape mother-Child pairs working together to groom and tacks their horse, but the distraction of the video tape was creating problems with safety and timeliness of completing tasks. The researcher made the decision to only observe during the groom and tack time and then video-tape and observe the riding lesson portion of the program. Video-tapes were reviewed to supplement researcher field notes and used to verify questions or uncertainties from those notes.

Triangulation of the Data

A major strength of case study design is the use of multiple data sources to arrive at a conclusion. Triangulation is the process of analyzing the same construct through different sources of data. Concerns with construct validity are addressed through this process because multiple sources of data are fundamentally providing multiple measures of the same phenomenon (Yin, 2003). In this study the three constructs that are being looked at, child behavior, parental stress, and child self-esteem are all analyzed from multiple sources of data as shown in Figure 3.1.

Figure 3.1 Sources of Data



Data Analysis

Qualitative Data Coding and Analysis

All interviews were audio-taped and transcribed verbatim before the coding process began. Qualitative coding was done of all interviews, event logs and researcher field notes. Before developing a coding schema, a list of potential themes was generated based on a review of the literature. Themes were categorized based on the three dependent variables. Boyatzis (1998) states that code development based on theory and a thorough review of the literature is most frequently done. A thorough read of all of the transcripts was completed to determine if the generated list of themes was complete, additional themes were added. Coding matrices were developed for each of the three variables. Each transcript was sorted by themes within the transcript and it was determined how many of the themes were present. The themes within each variable

matrix were them sorted and models of interaction for the behavior themes and the self-esteem themes were created.

During the coding process, quotes that clearly exemplified the theme were highlighted and entered into a separate database where they were sorted by theme for inclusion in chapters four and five. In addition, stories that highlighted a meaningful experience within each were highlighted and are included in chapter five.

A random sample of three mother interviews was double coded to minimize researcher bias in the coding process. All interviews were coded by the researcher and the three randomly selected cases were coded by a research assistant. The research assistant was trained on theme coding and given the list of themes with definitions of each theme. The reliability between coders for the three double coded mother interviews was 74%. Themes that were identified by one coder and not the other were discussed between the coders and a decision was made to include the theme or not. Additional themes were only added if there was significant evidence of that theme in the transcribed interview. Due to financial and temporal restrictions only three mother interviews were double coded.

Quantitative Data Analysis

The quantitative data was analyzed by group and by case. Standardized measures were analyzed using the Statistical Package for the Social Sciences [SPSS], student version 15.0 for Windows. Data entry was validated 2-3 days after the original data entry date. Paired sample t-tests were run to look for significant changes in scores and to calculate means and Standard Deviations. Correlations were assessed at the alpha value, $p=.05$.

Individual case analysis was done to determine movement between clinical and non-clinical ranges on standardized measures. The mother-Reported scaled data was graphed to look for trend lines indicating possible improvement in target areas defined by each mother regarding her child.

CHAPTER FOUR

GROUP FINDINGS

The data has been analyzed by group and by case. The small sample size makes the findings from group analyses limited but does provide some insight into the possible impact of a Therapeutic Horsemanship Program mothers and their children adopted from foster care. While the group data analyses provides some insight, individual case explications provide a more in depth understanding of what effects may come from this type of program. The small sample size is a severe limitation for looking at this data as a group. It does highlight some interesting areas that may be looked at in the future and is therefore worth the analysis.

Research Question One

Is participating in a therapeutic horseback Therapeutic Horsemanship Program related to external child behaviors?

Child Behavior Checklist

The Child Behavior Checklist has multiple scales that can be analyzed. The three areas analyzed are Competence, Problems and Syndrome Scales. There are four scales of Competence: Total Competence, Activities Competence, Social Competence, and School Competence. There are three scales of Problems: Total Problems, Internalizing Problems, and External Problems. There are eight Syndrome Scales: Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behavior and Aggressive Behavior. For group

analyses, paired sample t-tests were run on the Competency scales, the Problem scales and the Syndrome Scales.

Of the Competency scales, only the Activities Competency (n=9) showed statistically significant improvement at the $p<.05$ level ($p=.046$). The pre-test mean was 10.56 (SD=2.16) and the post-test mean was 10.94 (SD=1.91). Since the intervention is based on increasing skills related to working with riding horses, this is clinically interesting. This is consistent with what would be expected based on the theoretical constructs taken from Social Learning Theory. Tables 4.6 and 4.7 provide the statistics for the paired sample t-tests that were run.

The ASEBA manual reports data for matched referred and non-referred children for the CBCL (Achenbach & Rescorla, 2001). On the Total Competency Scale, Non-referred girls and boys scored a mean raw score between 24.7 and 25.0 (SD was between 4.0 and 4.4) and the referred girls and boys scored a mean raw score between 17.0 and 18.0 (SD was between 5.0 and 5.6). The range in scores represents different means for boys and girls and two different age groups. This sample is closer to the referred group indicating a below average competency level. Individual cases that moved from clinical to normal ranges will be discussed in each case explication.

Table 4.1
Child Behavior Checklist, Competency Scales Paired Sample Statistics

Scale	Mean	N	SD
Total Competency Pre-test	22.86	7	2.36
Total Competency Post-test	22.64	7	2.27
Activity Competency Pre-test	10.56	9	2.16
Activity Competency Post-test	10.94	9	1.91
Social Competency Pre-test	7.38	8	2.01
Social Competency Post-test	6.88	8	1.75
School Competency Pre-test	3.50	7	1.08
School Competency Post-test	3.64	7	1.28

Note: Scales with missing data were not able to be scored resulting in a smaller N.

Table 4.2
Child Behavior Checklist, Competency Scales Paired Sample Correlations

Scale	Paired Differences Mean	N	Paired Differences SD	Sig.
Total Competency	.21	7	1.55	.727
Activity Competency	-.39	9	1.65	.501
Social Competency	.50	8	1.41	.351
School Competency	-.14	7	1.25	.772

Note: Scales with missing data were not able to be scored resulting in a smaller N.

Of the Problems Scales on the CBCL, the Total and External Scores decreased (indicating improvement) statistically significantly. The Total Problem (n=9) pre-test mean was 59 (SD=9.07) and post-test mean was 58.44 (SD=16.55). The decrease was statistically significant at the $p<.05$ level ($p=.002$). The Total Problem score is a combination of the Internal and External Problem Scores. The External Problem (n=9) pre-test mean was 20.11 (SD=8.03) and the post-test mean was 18.44 (SD=9.32). The mean Internal Problem score actually increased from pre-test to post-test, indicating increased problems in this area. This may be accounted for by issues related to

termination but also may reflect the complex nature of the challenges the children in this sample are facing.

The ASEBA manual reports data for matched referred and non-referred children for the CBCL (Achenbach & Rescorla, 2001). On the Total Problem Scale, Non-referred girls and boys scored a mean raw score between 22.8 and 25.2 (SD was between 15.6 and 18.9) and the referred girls and boys scored a mean raw score between 58.5 and 68.2 (SD was between 30.9 and 32.7). The range in scores represents different means for boys and girls and two different age groups. On this scale, this sample is closer to the referred mean reflecting the level of difficulty in behavior with these children. Individual cases that moved from clinical to normal ranges will be discussed in each case explication.

Table 4.3
Child Behavior Checklist, Problem Scales Paired Sample Statistics

Scale	Mean	N	SD
Total Problems Pre-test	59.00	9	9.07
Total Problems Post-test	58.44	9	16.55
Internal Problems Pre-test	10.22	9	7.03
Internal Problems Post-test	10.89	9	7.08
External Problems Pre-test	20.11	9	8.04
External Problems Post-test	18.44	9	9.32

Table 4.4
Child Behavior Checklist, Problem Scales Paired Sample Correlations

Scale	Paired Differences Mean	N	Paired Differences SD	Sig.
Total Problems	.56	9	9.55	.866
Internal	-.67	9	2.18	.386
External	1.67	9	4.33	.282

The CBCL measures eight syndrome scales. Four of the scales showed a decrease at post-test, three of which were statistically significant at $p<.05$. They were the Somatic

Compliant, Rule-Breaking Behavior and Aggressive Behavior Scales. The later two are clinically interesting as many of the mothers identified following rules and aggressive behaviors as being particularly difficult for them. It is possible that factors other than the Therapeutic Horsemanship Program impacted the decrease in scores on these scales; these are discussed in each individual case. Four of these scales, Anxious/Depressed, Withdrawn/Depressed, Social Problems, and Thought Problems increased, reflecting increased difficulty. The statistics for the paired sample t-tests that were run are shown in Tables 4.5 and 4.6.

Table 4.5
Child Behavior Checklist, Syndrome Scales Paired Sample Statistics

Scale	Mean	N	SD
Anxious/Depressed Pre-test	4.67	9	4.36
Anxious/Depressed Post-test	4.78	9	4.57
Withdrawn/Depressed Pre-test	3.78	9	2.22
Withdrawn/Depressed Post-test	4.78	9	2.64
Somatic Complaints Pre-test	1.78	9	1.86
Somatic Complaints Post-test	1.33	9	1.41
Social Problems Pre-test	6.11	9	3.30
Social Problems Post-test	7.44	9	4.25
Thought Problems Pre-test	5.56	9	3.84
Thought Problems Post-test	5.89	9	4.43
Attention Problems Pre-test	10.00	9	3.32
Attention Problems Post-test	9.00	9	3.50
Rule-Breaking Behavior Pre-test	4.67	9	2.92
Rule-Breaking Behavior Post-test	4.11	9	2.62
Aggressive Behavior Pre-test	15.44	9	5.41
Aggressive Behavior Post-test	14.33	9	7.02

Table 4.6
Child Behavior Checklist, Syndrome Scales Paired Sample Correlations

Scale	Paired Differences Mean	N	Paired Differences SD	Sig.
Anxious/Depressed	-.11	9	1.54	.834
Withdrawn/Depressed	-1.00	9	1.58	.094
Somatic Complaints	.44	9	.88	.169
Social Problems	-1.33	9	2.18	.104
Thought Problems	-.33	9	2.12	.650
Attention Problems	1.00	9	2.92	.334
Rule-Breaking Behavior	.56	9	1.13	.179
Aggressive Behavior	1.11	9	3.66	.388

Qualitative Data

The qualitative data yielded themes related to behavior from the perspective of the mothers, the Instructors and the researcher. After analysis of the interviews, surveys and filed notes, eight themes related to behavior emerged. These eight themes then fell into two categories. Internal behaviors were behaviors that occurred due to a change in something internal to the child and External behaviors were those that included specific behaviors that the child outwardly did. Internal behaviors included Insight into Behavior, Child's Stress Reduction, Patience, Desire to Learn, and Persistence. In this case, insight refers to insight about the child's own behavior gained from learning about how to understand horse behavior. External behaviors included Improvements at Home, Improvements at School and Improvements in Following Directions.

The most frequently reported Internal Behavior theme by the mothers was Child's Stress Reduction (N=4), followed by Persistence (N=3), Insight into Behavior (N=2), and Patience (N=1). All of these themes, particularly Persistence, were also noted by the

Instructor and the researcher. In addition, the Instructors and researcher noted an increased Desire to Learn in three of the cases that the mothers did not report. These will be specifically discussed in each case.

Table 4.7
Qualitative Behavior Themes - Internal

Skills Themes	Number of Cases mother Reported	Number of Cases Instructor Reported	Number of Cases Researcher Observed
Insight into Behavior	2	2	2
Child's Stress	4	0	2
Patience	1	2	1
Desire to Learn	2	3	3
Persistence	4	8	8

The themes related to external behavior were more notably reported by the mothers about environments other than Equest. Specifically, three mothers noted improvements in behavior at home and at school. Home behavior was related to less melt-downs and less confrontation; school behavior was related to participating more in class, engaging more with the school counselor and improvements in school performance. Specifics for each case are discussed under the individual cases.

Selected Quote:

> Before this program David didn't care if he was in time-out. If we took things away from him, he didn't care. He would keep doing what he was doing even after time-out. He didn't care about anybody but himself. Now he listens (most of the time) and when I tell him that we are not going to Equest his behavior changes. There was only one time we didn't go because of his behavior and now he knows that I love him but his behavior has to stop and it does.
> -mother, Case #5

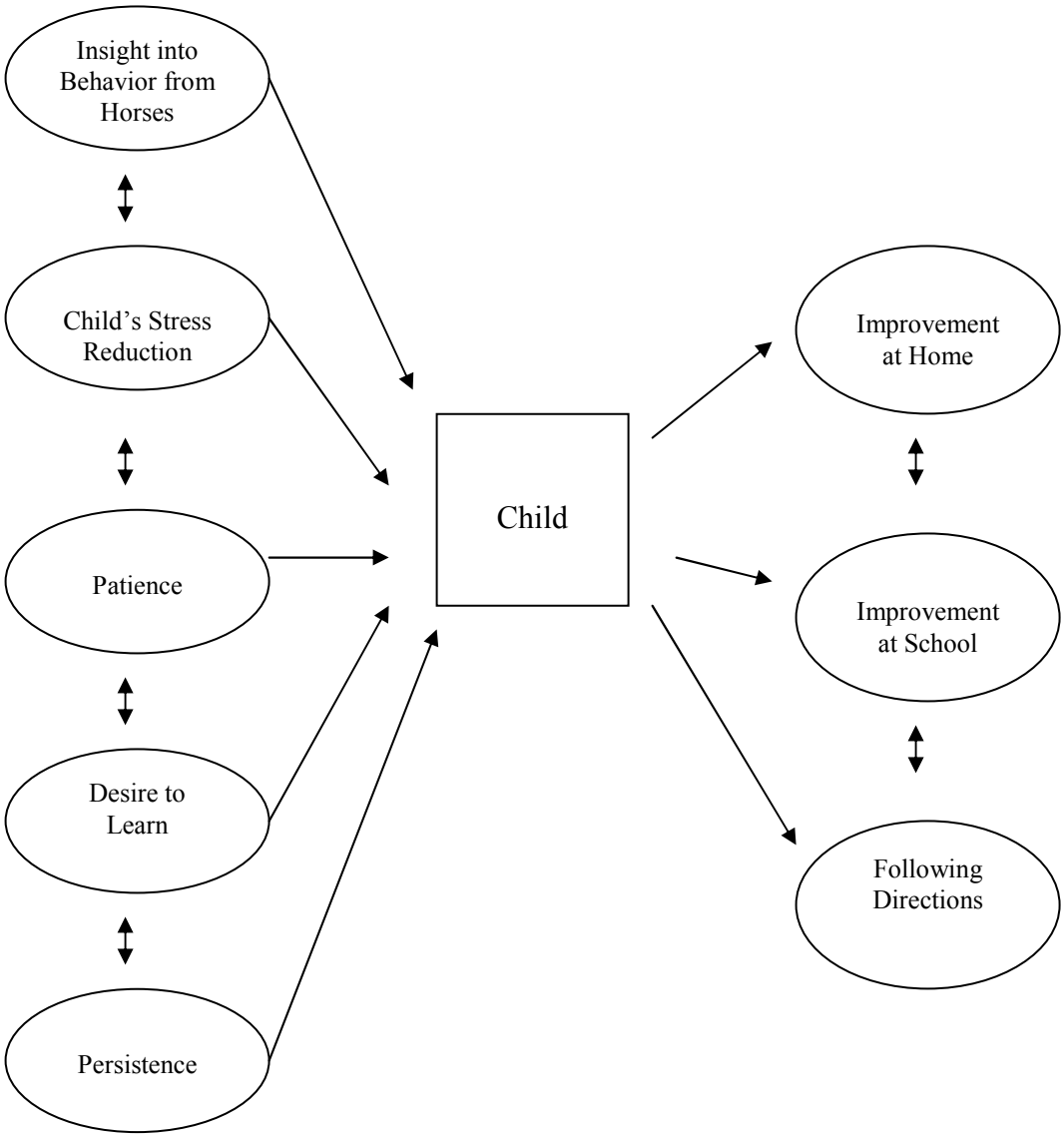
Table 4.8
Qualitative Behavior Themes - External

Outcomes Themes	Number of Cases mother Reported	Number of Cases Instructor Reported	Number of Cases Researcher Observed
Improvement, Home	3	0	0
Improvement, School	3	0	0
Following Directions	3	3	6

It is difficult to make a causal connection between changes in child behavior and the Therapeutic Horsemanship Program due to the small sample and extraneous variables that were not able to be controlled for. Figure 4.1, however, depicts a possible model of how a child might internalize certain behaviors learned at Equest resulting in improved behaviors at home and at school. It is suggested that the model is cyclical in nature. The interaction of the internal behaviors together affects the child which then yields the external behaviors which also interact with each other.

Figure 4.1
Relationship of Qualitative Behavior Themes

Internal Behaviors External Behaviors



Research Question Two

Is participation in the program related to the child's self-esteem?

Culture Free Self-Esteem Inventory-3

The Global Self-Esteem Quotient (GSEQ) is the most reliable and useful value obtained from the Culture Free Self-Esteem Inventory (Battle, 2002, p.15). GSEQ scores between 90 and 110 are considered normal and account for 50% of the population. There are four subscales of the CFSEI-3. The developers recommend using these subscales for insight into the GSEQ rather than as a specific indicator. The four subscales are Academic Self-Esteem, General Self-Esteem, Parental/Home Self-Esteem, and Social Self-Esteem. Paired sample t-tests were run on the GSEQ as well as the four subscales. The Academic Self-Esteem score assesses the child's perception of her academic ability; the General Self-Esteem score assesses the child's overall perception of self-worth; the Parental/Home Self-Esteem measures the child's feeling about how her parent's view her; and the Social Self-Esteem measures the child's beliefs about her relationship with peers.

At pre-test, the mean GSEQ score was 90.22, just barely in the normal range. Six of the nine participants scored in the normal range and three scored below the normal range, indicating low overall self-esteem. Two scored above 100 and none scored above the normal range. At post-test, two of the three participants who had scored below the normal range, improved their scores into the normal range. A paired-sample t-test was run. The post-test mean GSEQ score was 101.89. The standards deviations for the pre-test and post-test scores were 9.16 and 9.62 respectively. The improvement in scores was

statistically significant at the p=.05 level (p=.005). The clinical improvements have potential to be important to practitioners and are worth further assessment. The large standard deviations, and the fact that six of the children were in the normal range, makes the individual case analyses important for understanding the change in scores.

Of the six children whose scores stared out in the normal range, four were on the low end of the normal range scoring 93, 90, 90, and 90. These scores improved to 98, 113, 107, and 102 respectively. Given the importance of self-esteem on child development and the relatively low normal range scores, these clinical improvements are important. It is difficult to say whether or not the Therapeutic Horsemanship Program contributed to the increase in self-esteem scores, but all nine of the mothers in the sample indicated in interviews or surveys that they felt the Therapeutic Horsemanship Program did improve their child's self-esteem. A further breakdown of the clinical improvements provides a better understanding of the impact on the GSEQ.

GSEQ scores from 80-89 indicate below average self-esteem and scores from 70-79 indicate low self-esteem. In the sample, two children scored in the below average self-esteem range and one child scored in the low self-esteem range. One of the children in the below average group and the child in the low group were siblings (adopted siblings and half-birth siblings). Of the three children who scored below the normal range (77, 80 and 85), the two scoring 80 and 85 improved to the normal range at post-test (90 and 95), each improving 10 points. The one participant who did not move into the normal range at post-test improved from a score of 77 at pre-test to 87 at post-test (10 point improvement) and was approaching the lower part of the normal range. Again, all of the

mothers felt that the program did impact their child's self-esteem, and although it is difficult to necessarily attribute the changes to the Therapeutic Horsemanship Programs, it is important to consider the possibility based on the data in conjunction with the mothers' reports.

The subscales provide insight into the GSEQ scores and more thorough understanding of the clinical changes. Those subscales that were statistically significant at the p=.05 level were the Parental/Home Self-Esteem subscale (p=.007) and the Social Self-Esteem subscale (p=.035). The changes in the Academic Self-Esteem subscale and the General Self-Esteem subscale were not statistically significant at the p=.05 level. The Therapeutic Horsemanship Program's main components focused on the mother-child interaction and the peer group interaction making the statistically significant differences in the Parental/Home Self-Esteem and Social Self-Esteem subscales clinically interesting. Tables 4.9 and 4.10 provide the paired sample statistics and correlations for the GSEQ and the four subscales.

Table 4.9
Culture Free Self-Esteem Inventory-3 Paired Sample Statistics

Scale	Mean	N	SD
GSEQ – Pre-test*	90.22	9	9.16
GSEQ – Post-test*	101.89	9	9.62
Academic Self-Esteem Pre-test	7.78	9	1.39
Academic Self-Esteem Post-test	10.22	9	1.99
General Self-Esteem Pre-test	8.67	9	2.66
General Self-Esteem Post-test	10.44	9	1.67
Parental/Home Self-Esteem Pre-test	9.44	9	1.13
Parental/Home Self-Esteem Post-test	10.67	9	1.80
Social Self-Esteem Pre-test	8.22	9	2.64
Social Self-Esteem Post-test	9.78	9	1.86

Note: Normal ranges are not available for the subscales.
* Raw scores between 90 and 110 are considered normal.

Table 4.10
Culture Free Self-Esteem Inventory-3 Paired Sample Correlations

Scale	Paired Differences Mean	N	Paired Differences SD	Sig.
GSEQ – Pre/Post*	-11.67	9	5.41	.000
Academic Self-Esteem Pre/Post*	-2.44	9	2.07	.008
General Self-Esteem Pre/Post	-1.78	9	2.54	.069
Parental/Home Self-Esteem Pre/Post*	-1.22	9	1.09	.010
Social Self-Esteem Pre/Post*	-1.56	9	1.88	.038

* Statistically significant at p<.05

Qualitative Data

Issues related to self-esteem were reported by the mothers and Instructors and were observed by the researcher. A thematic coding of all interviews, surveys, and field notes, led to the development of eight themes related to self- esteem. These themes are: riding skills, interaction with horses, interaction with staff, self-confidence/self-efficacy, participating in a successful activity, skill translation, interaction with mothers and interaction with peers/siblings. The themes were analyzed and grouped into three categories based on the content of each theme: Skills, Primary Outcomes and Secondary Outcomes.

The three Skills themes are areas that the program specifically targets. Riding skills are the foundation of the program. The children are taught how to ride and skill progression is the main focus of each riding lesson. Skills related to interacting with the horses and interacting with staff were directly targeted in the program. In addition to

riding skills, the children were taught how to approach and handle the horses as well as how to handle the horses while walking them through the barn where other people or horses may be. For example; when walking into a stall to retrieve a horse, there are certain ways to hold the halter and lead rope and certain ways to use body language and voice cues to successfully approach the horse, put the halter on and walk the horse out of the stall. Riders at Equest are also expected to follow barn rules and common courtesy when interacting with the staff, instructors and volunteers. Appropriate communication and interaction skills are directly taught as well as continually modeled for the riders to learn.

Improvement in riding skills was reported by mothers and Instructors and observed by the researcher for all nine cases. Of the nine cases, one child had participated in several summer camps over the past few years and started this program with more riding skills than the other eight children. This child was able to focus on fine-tuning her riding skills and her mother reported that she enjoyed learning these skills. Her instructor reported her increased ability to "read" her horse's body language and respond appropriately. The other children had all been on a horse either in a fair-type setting or birthday party, but none had taken riding lessons. Riding skills include the child's ability to actually learn to ride and progress in those skills towards riding independently. The theme, Interaction with horses/ horse handling, focused on the ability of the child to feel confident working with the horses in their stalls and in the barn. It includes learning the skills related to grooming (cleaning the horse), tacking (saddling the horse), and generally interacting appropriately and safely with the horse. These themes are related to self-

esteem due to the self confidence that it takes for a child to handle a 1,000 pound horse and the behaviors that indicate self-confidence when working with horses.

Eight of the nine mothers reported that they noticed how their child learned to interact with the horses. These reports included learning skills related to getting the horse out of the stall, grooming (cleaning), tacking (putting the saddle and bridle on) and walking the horse through the barn or to the arena. Several of the mothers reported that they did not expect their child to be able to accomplish these activities and were very happy to see their child achieve success at a difficult task. The mother, who did not report improvement in this area for her child, reported that her child enjoyed riding more than working with the horse to get it ready to ride. The Instructors and researcher reported noticeable improvement in this area for five of the cases.

Selected Quotes:

> We love the program. I feel as good about learning a new skill as he does, I think. Jason tells lots of people about T.V. (the horse) and is happy with his accomplishment. -mother, Case #1

> Kelly is doing an awesome job with her horse. She is very competent at Equest, hopefully it will carry over to other things. -mother, Case #6

> I like watching Jason ride and seeing him happy as he learns new skills. -mother, Case #8

Two of the mothers reported that their children were learning to respond more appropriately to the Instructors and volunteers during the program. Interaction with Instructors and volunteers included concepts of how the child cooperated with a variety

of adults including instructors, staff and volunteers. The theme included concepts of being able to talk with adults, ask questions of the appropriate people, seek out help and engage with the various adults at Equest. Many of these skills are taught in the program through modeling and mentoring. Although only two mothers noticed improvement in this area, several mothers commented that their children behave very well at Equest which is normal for how children behave at Equest. The motivation of being able to ride often creates an environment where there is little difficulty with child behavior. This is frequently noted at therapeutic riding centers by parents of children with all types of disabilities. Table 4.3 shows the breakdown of Skills themes by type of data.

Table 4.11

Qualitative Self-Esteem Themes - Skills

Skills Themes	Number of Cases mother Reported	Number of Cases Instructor Reported	Number of Cases Researcher Observed
Riding Skill Development	9	9	9
Interaction with Horses	8	5	5
Interaction with Staff	3	0	3

The primary outcomes were themes that appeared to be direct results of the Skills themes. Children in this program were riding twice weekly which allowed them to progress in terms of their riding ability very quickly. Although only a very few of the children had ever ridden before, all of them were riding independently at the walk and trot by the end of their respective sessions. Three of the children also learned to canter, a skill that can only be done after successfully learning to control the horse at a trot. This

led to reports of increased self-confidence and reports related to concepts of self-efficacy. Self-confidence and self-efficacy include all of the concepts indicating that the child is feeling a sense of accomplishment and showing that through body language, verbal communication or change in behavior and when a child's self confidence had improved to the point where they can try to learn a new skill. This also included the child initiating a skill that they had previously been scared to try or responding to the request of the instructor to improve a skill that the child had previously been unable or unwilling to try.

> Selected Quotes:
> Spending one-on-one time with Jeff (is the best part) and seeing him thrive at a task and enjoy it. I like to see his self-esteem built up. -mother, Case #9
>
> The program is excellent and very positive for Helen. -mother, Case #7
>
> Kelly has appeared scared at times but still went ahead with mounting, tacking, or riding. Before Equest she usually would shy away [when she was scared]. -mother, Case #6
>
> I think this is great. Not only is David riding but we are spending time together. We are learning things. I have never seen him this excited about anything before this. -mother, Case #5

Reports of improved self-confidence and concepts related to self-efficacy were made by six mothers. They reported that their child felt very good about learning to ride and learning to handle very large horses. The children were all young enough to feel very small next to large horses, and these mothers felt that learning to manage and control such a large animal was very empowering and gave them an increased sense of self-confidence. The instructors noticed an increased self-confidence for all of the cases and

the researcher observed this in eight of the cases. The instructors at Equest are trained to focus on success and build up self-confidence, so it is not unusual that this would be noted in cases where the mother did not note it.

Selected Quote:

> The program has been very helpful for her. The self-confidence, her emotional maturity also seems to be improving somewhat. -mother, Case #4

Six of the mothers specifically reported that having found an activity that their child was successful at was very important. They discussed how often their child might be interested in an activity at school but unable to be successful due to their various emotional, social and physical challenges. Riding at Equest is done in a group with a focus on individual skill development so the child is successfully engaging in a group activity while being able to progress at his/her own pace within the group. The skills they were learning and the assistance from the instructors and volunteers created such a positive environment that the children felt successful no matter how quickly or slowly they were learning.

Selected Quotes:

> This program is awesome. Gail (instructor) and her assistants are extremely professional, always positive and so caring with the kids. The facility is very high class. -mother, Case # 6

> The staff is caring and knowledgeable and the volunteers are so nice. Jason and I always have a positive experience at Equest. -mother, Case #8

Skill translation was noted by the instructors with regard to three cases. In these cases, the children were able to take a skill learned in one context and translate it to a similar context while making appropriate accommodations. This most frequently occurred during the horse change week when the Instructor assigned new horses for each child to ride. In the three cases where this was noted, the child was able to adapt skills learned on their original horse for use with the new horse. Translation of riding skills from one horse to another included the child's ability to learn riding skills while riding one horse and then be able to maintain that competence when switched to another horse. This skill can be difficult, as horses respond and behave in different ways and this reflects a higher level of skill mastery. Table 4.4 shows the breakdown of primary outcome themes by type of data.

Selected Quotes:

> Cathy is able to take care of Lexington (new horse) like she was able to take care of Sonny (original horse). Neither horse likes to be groomed and she is so gentle and caring while she reassures them. She is really in tune to how her horses are feeling, even while she is riding. With both horses I noticed her petting them or talking to them to help them relax. -instructor, Case #1

> I think Kelly had a light-bulb moment with her bike yesterday. She said 'riding my bike is about balance'. So maybe the horse riding will help her learn to ride her two-wheeler. Kelly lives for her Tuesdays and Thursdays (Equest lessons days). -mother, Case #6

Table 4.12
Qualitative Self-Esteem Themes - Primary Outcomes

Outcomes Themes	Number of Cases mother Reported	Number of Cases Instructor Reported	Number of Cases Researcher Observed
Self-Confidence/ Self-Efficacy	6	9	8
Having a Successful Activity	6	0	0
Skill translation	0	3	0

Secondary outcomes were noted in several of the cases. These are outcomes that appear to have possibly occurred due to the skills learned and primary outcomes achieved. Four of the mothers noted improved interaction between their child and peer or siblings and two of the mothers noted improvements in their child's interaction with themselves. The researcher observed some of these improvements as well. With regard to peers and siblings, the mothers reported that having an activity that their children are good at gives them something to talk about and share with their friends. It also provides them with an activity for their siblings to come watch them participate in instead of always going to their siblings' games and events. Two of the mothers reported that their children are more respectful at home and that Equest gives them something to talk about and look forward to doing together. These mothers reported that they have never had an activity that they both looked forward to doing together.

The secondary outcomes themes are concepts that came out during analysis that appear to have possibly occurred as a result of one or more of the skills themes. Interaction with mothers includes improvement in how the child interacts with his/her mother. This theme was primarily reported by the mothers in their interview after the

conclusion of the program. In some cases, it was evident to the instructor or the researcher as well. Interaction with peers and/or siblings includes the child's ability to have positive relationships with peers and siblings. This includes being able to have a topic to discuss and be an expert about and no longer feeling like the other siblings have all the fun activities. Table 4.5 shows the breakdown of secondary outcome themes by type of data.

> Selected Quotes:
> David comes up to me more and gives me hugs and he tells me he loves me more. He asks me more questions. Most of the time he is not fighting with me or siblings as much. -mother, Case #5
>
> She loves to ride the horses and wants me to be with her but her behavior at home isn't good. -mother Case #1

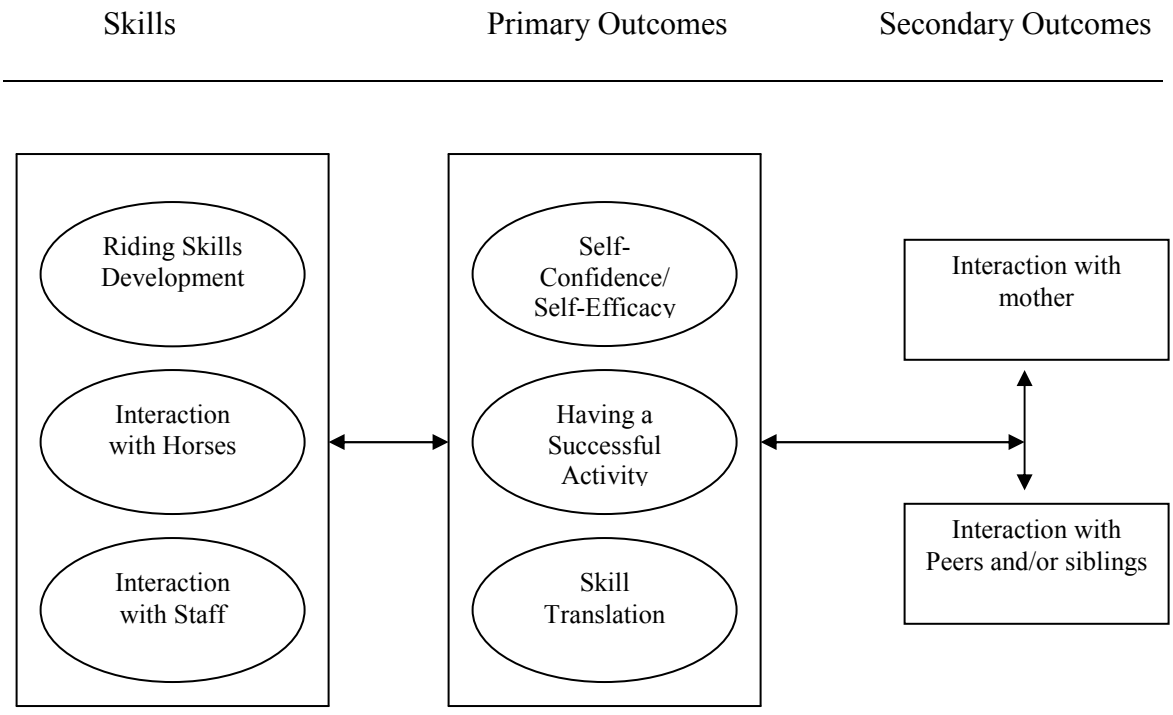
Table 4.13
Qualitative Self-Esteem Themes - Secondary Outcomes

Outcomes Themes	Number of Cases mother Reported	Number of Cases Instructor Reported	Number of Cases Researcher Observed
Interaction with Peers/Siblings	4	0	4
Interaction with mother	3	0	1

The three categories of themes extrapolated from the qualitative data seem to build upon each other. The foundation of the Therapeutic Horsemanship Program is skill development. Everything that is done at Equest is done with the goal of learning new skills and becoming more independent and successful as a rider and horse-person. This includes learning how to appropriately interact with the horses on the ground and in the saddle as well as learning how to interact with a variety of adults including Instructors,

staff and volunteers. The primary outcomes seem to be a direct result of the Skills that are learned while at Equest. Although learning to interact better with their mothers and peers or siblings is not a target of the program at Equest, several of the mothers noted this and the researcher observed these improvements as well. The secondary outcomes seem to be a product of the interaction of the Skills developed and primary outcomes achieved. This relationship is shown in Figure 4.1.

Figure 4.2
Relationship of Qualitative Self-Esteem Themes

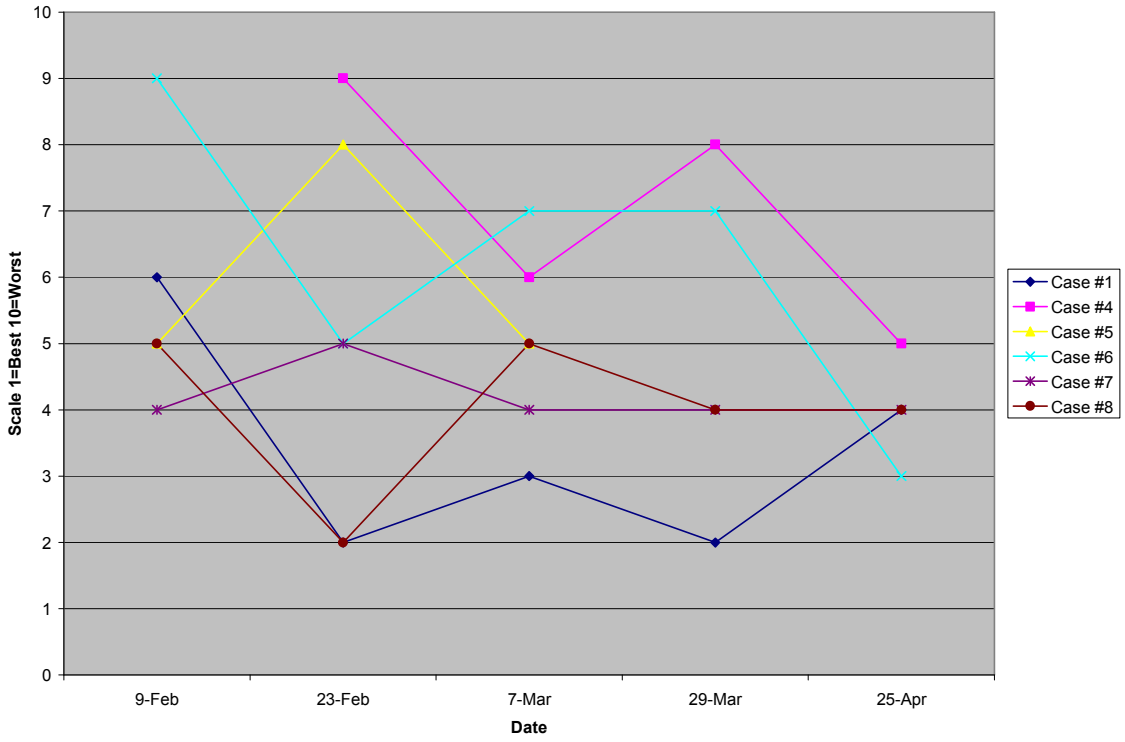


Mother Scaled Data

In addition to the self-identified areas needing improvement, each mother in the spring, 2006 group was asked to rank on a scale from 1-10 (1=Best, 10=Worst) their child's level of Self-Esteem. Figure 4.2 provides a visual representation of the scores. Tammy and Kelly's mothers indicated the most improvement is self-esteem. Both Tammy and Kelly scored in the below average range on the CFSEI and although only Kelly moved up into the normal range, Tammy's scored improved and her post-test score was only 2 points below the normal range.

The mother reported scaled data on self-esteem is mostly inconclusive. There might be a very slight trend towards improvement (downward slant in this graph indicates improvement) but the data points are very scattered. The mother's parenting stress levels, as reported below, were extremely high for this group. It is possible that if their children's self-esteem was increasing, as the CFSEI-3 indicated may have been occurring, their stress levels may have been too high to readily notice it. The mothers also filled out the scaled survey at different locations. Some mothers filled it out at Equest while their children got their horses ready and others asked if they could take it home. There was no imposed requirement about the location in which they survey was filled out, only the week in which it was to be done. This may have introduced bias as a mother filling the survey out at Equest while her child is getting ready for a riding lesson may have a different perspective than if she was at home trying to end her day while her child is being difficult.

Figure 4.3
Mother-Reported Self-Esteem Scaled Data



Research Question Three

Is participation in the program related to the mother's level of parenting stress?

Parent Stress Inventory – Short Form (PSI)

The PSI has three subscales in addition to the Total Stress. They are; Difficult Child (DC), Parent-Child Dysfunctional Interaction (P-CDI) and Parental Distress (PD). The DC subscale focuses on child behavior that makes parenting difficult, the P-CDI focuses on the interaction that does not reinforce the parent's ability to parent and the PD is a measure of distress related to personal factors related to parenting (Abidin, 1983).

Individuals scoring in the 15th -80th percentile are in the normal range for the Total Stress scores for the PSI-SF. In this sample, three mothers scored in the normal range with one of those being very close to the top of the range with a score in the 78th percentile. The other two mothers in the normal range scored in the 15th and 22nd percentiles. Both of these mothers scored very high at post-test (75th and 80th percentiles respectively) raising concern that their pre-test scores might have reflected socially desirable responses as both of the mothers reported improvements in their child's self-esteem and skill development through the program. During initial interviews, both mothers were very concerned with presenting themselves and their children well and after developing a relationship with the researcher, the post-test scores may more accurately represent the stress levels of each of these mothers.

The Total Stress score for the mothers in the sample (n=9) showed a statistically significant decrease at the $p<.05$ ($p=.01$). The pre-test mean score was 94.67 (SD=25.10) and the post-test score was 94.22 (SD=20.12). The decrease, while statistically significant, did not represent a movement from the clinical range to the normal range for any of the mothers. Six of the nine mothers' pre-test and post-test scores were in the clinical range and only three of these had decreased post-test scores. Of the three mothers whose pre-test were in the normal range, one decreased from the 75th percentile to the 19th percentile. The other two mothers in this group increased their Total Stress scores from the 23rd percentile to the 80th percentile and 15th percentile to the 75th percentile. The former was becoming a Grandmother for the first time at the time of the post-test which was causing a great deal of conflict between her birth-daughter and her

adopted-daughter. The later mother's increase may have been due to social desirability at the time of post-test or a true increase in stress due to her report that her child "was cycling" and they were having difficulty getting his medication adjusted correctly. Both of these mothers' scores remained in the normal range despite the increase.

Of the three subscales, scores decreased statistically significantly at the $p<.05$ level on the DC ($p=.01$) and the P-CDI ($p=.012$) subscales but not on the PD ($p=.304$) subscale. The DC and P-CDI subscale reflects child behaviors that cause parenting stress and parent child interaction. A reduction in these scores indicated that the children's behaviors and the mothers' interactions with their children may have improved enough since the pre-test to positively impact parenting stress levels. It is important to relate this information back to the Total Scores and recall the lack of movement from clinical range to normal range.

Table 4.14
Parenting Stress Index - Short Form, Paired Sample Statistics

Scale	Mean	N	SD
Total Stress Pre-test	94.67	9	25.10
Total Stress Post-test	94.22	9	20.12
Difficult Child Pre-test	38.22	9	10.77
Difficult Child Post-test	38.11	9	8.65
Parent-Child Dysfunctional Interaction Pre-test	30.33	9	10.20
Parent-Child Dysfunctional Interaction Post-test	29.67	9	8.62
Parental Distress Pre-test	26.22	9	7.41
Parental Distress Post-test	26.56	9	4.75

Table 4.15
Parenting Stress Index - Short Form, Paired Sample Correlations

Scale	Paired Differences Mean	N	Paired Differences SD	Sig.
Total Stress	.44	9	15.08	.932
Difficult Child	.11	9	6.68	.961
Parent-Child Dysfunctional Interaction	.67	9	5.05	.702
Parental Distress	-.33	9	7.09	.891

Qualitative Data

Many themes related to parental stress emerged from the qualitative data. The most frequently reported by the mothers was having a positive interaction with their child (N=7), followed by not feeling alone (N=5). Additionally, sharing resources (N=4), having an ongoing volunteer opportunity (N=3) and feeling calm around the horses (N=1) were reported. The instructors reported seeing the horses having a calming affect on two of the mothers. The researcher observed seven mothers sharing resources about summer camp, school special education services and different types of therapy. The researcher also observed that four of the mothers were noticeably laughing and smiling more often near the end of the program than they were at the beginning of the program.

Selected Quotes:

> It's been pleasant to visit with the other mothers. -mother, Case #4

> It is great to be able to talk to the other mothers and share ideas with them. -mother Case #1

> I like being around the other mothers. We have a lot in common and I wish we could spend more time together. But I like the time with David too. -mother, Case #5

> Listening to other mothers' ideas and strategies helps with new approaches sometimes. -mother, Case #6

The topic of parenting stress was the least discussed by the mothers during interviews and surveys despite quantitative and qualitative data suggesting they may have experienced a reduction in their stress. This may be occurring for two reasons. First, the quantitative decreases in stress did not indicate big movement from the clinical to normal ranges and their stress levels were so high that minor reductions may not be felt. Second, many adoptive parents are more focused on the success of their children, thereby neglecting and not focusing on their own mental health.

The themes related to Stress were then categorized into stress reducing behaviors and stress reducing feelings. There appeared to be a relationship between certain behaviors done at Equest that led to positive feelings that in turn led to reduced levels of stress. This correlation can not be made based solely on this data, but it is being suggested as a possible explanation for how parenting stress is being impacted at Equest and may possibly be impacted over a longer period of time (Figure 4.4).

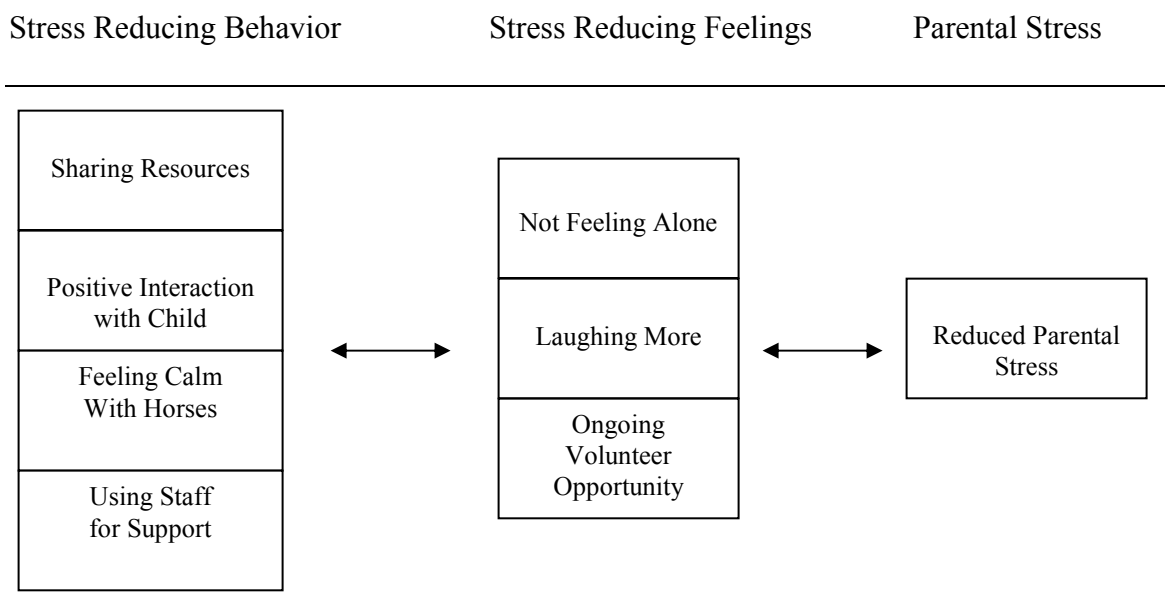
Table 4.16
Qualitative Parenting Stress Themes - Stress Reducing Behavior

Skills Themes	Number of Cases Mother Reported Theme For	Number of Cases Instructor Reported Theme For	Number of Cases Researcher Observed Theme For
Using Staff for Support	2	0	2
Sharing Resources	4	0	7
Positive Interaction w/ Child	8	0	0
Feeling Calm w/ Horses	1	2	4

Table 4.17
Qualitative Parenting Stress Themes - Stress Reducing Feelings

Skills Themes	Number of Cases mother Reported	Number of Cases Instructor Reported	Number of Cases Researcher Observed
Not Feeling Alone	5	0	0
Laughing More	0	0	4
Volunteer Opportunity	3	0	3

Figure 4.4
Relationship of Qualitative Parenting Stress Themes



Relationship between External Child Behavior, Child Self-Esteem and Parenting Stress

The interactive relationship between external child behavior, child self-esteem and parenting stress may impact the effects of this program. A correlation was run on these three variables. The external behavior cluster from the CBCL, the GSEQ from the CFSEI-3 and the Total Stress from the PSI-SF were used. The correlation measured to amount of variance associated between variables. The correlation between parenting

stress and external child behaviors was statistically significant at the $p<.05$ level. Parenting stress was related to 46% of external child behaviors and vice-versa. The GSEQ was not statistically significantly correlated with either of the other variables.

Additional Group Data

Each session began with the children and their mothers having the opportunity to choose their own horse. The Instructor for each session, along with several assistant for safety, turned 8-10 horses loose in the outdoor arena. The children and their mothers were instructed to spend time walking around the outside perimeter observing the horses and then report on which ones the felt most connected to. The mother-child pairs were to spend time together, not with the other mother-child pairs. This activity resulted in very interesting horse choices for the children.

Five of the nine children chose horses whose personalities and behaviors reflected the child's particular challenges and forced the child to directly work on that challenge in order to be successful with the horse. In Case #1, Cathy chose a horse who needed extra care and nurturing for him to remain calm. She was forced to pay attention to his needs rather than hers while she was grooming, tacking and riding this horse. Cathy's mother reported that she had problems with anger management and taking responsibility for her actions. This horse required that she remain calm even when things were difficult and to take responsibility for her behavior in working with him to ensure success.

In Case #5, David rode in both the fall and spring sessions and chose different horses for each session. In the fall session, David chose a pony who was obstinate and often difficult to manage. His mother described David and this pony as 'two peas in a

pod.' David's behavior was very oppositional and often aggressive. The pony was stubborn and often pushy tossing his head at David or his mother to try and get his way. David learned to understand his behavior by seeing this pony's behavior and comparing it to other pony's behavior. During the spring session, David's behavior had improved, according to his mother, and he chose a pony who was calm and responsive and reflected his improved behavior.

In Case #6, Kelly was a very timid, somewhat withdrawn child. She chose a very large horse, who was also one of the gentlest horses in the barn. This horse gave her a great deal of challenge to overcome due to his size, but was calm and nurturing enough to lend her the confidence she needed to overcome her fear and develop into a confident, assertive rider. Many horses may not have been able to give her the calm reassurance that she needed.

In Case #7, Jason chose a horse is sensitive to his rider's movements in the saddle. Jason had ADHD and yet chose a horse who the Instructors would not have normally assigned for a child with ADHD due to the horse's sensitivity to movement in the saddle. This horse-rider combination gave Jason the opportunity to understand how his behavior impacted another being; something his mother reported to be very difficult for him. This was a horse-rider combination that the Instructor monitored closely to ensure that Jason would remain safe with this horse. Although the first few lessons were very challenging, Jason bonded to this horse and gained valuable insight into how his behavior impacts others. If Jason has chosen a less sensitive horse, he might not have had such a dynamic learning opportunity.

The final case where the horse choice made a profound impact on the child's experience was with Case #9. Jeff was a child with social skills deficits. His mother reported that he was socially awkward and this presented problems with making friends and be appropriate with adults. His motor skills were often uncontrolled causing him to make large and awkward movements. Jeff chose a horse that was very sensitive to these movements. His horse reacted to him by backing away or throwing his head in the air and startling Jeff. Through this, Jeff learned to control his behaviors and movements and remain calm and quiet around the horse. His mother reported that to be a very difficult task for Jeff and one she did not expect him to accomplish. By the end of the program, Jeff's motivation to be successful with his horse allowed him to gain control of his behavior and movements and he was very successful with his horse working on the ground and while riding.

The horse choice activity proved to be an interesting component of the program. Equest is a large therapeutic riding center with thirty-five therapy horses. If the Instructor had assigned horses to the children as they usually did, based on physical characteristics, these therapeutic opportunities would not have developed. The children were attracted to the horse they chose for a variety of reason but felt just felt drawn to the horse. The empowerment aspect of having chosen their own horse, having overcome their personal challenges and having become successful was tremendous for all nine children in the sample.

Analysis of the mothers' engagement in the program provided further understanding into how a Therapeutic Horsemanship Program can be most beneficial.

The mothers in this sample fell into three related to their engagement with the program: high engagement, moderate engagement and low engagement. High engagement indicated that the mother attended all of the sessions, participated in the program while at Equest, participated in the home-work activities and found a connection with what her child was experiencing at Equest and challenges they were facing at home. Moderate engagement indicated mothers who attended the sessions and participated, saw the benefits but did not do the home-work assignments or try to incorporate the skills learned at Equest into their home life. The low engagement was for mothers who came to the program and saw the benefit for their child but did not participate and didn't seem to enjoy the environment. In this sample there were eight mothers, one mother participated in the fall and spring sessions with different children which is why the sample size is not nine. Of the eight, four mothers were in the high engagement category and three were in the moderate category and one was in the low category. While all of the children benefited in some way, the children whose mothers were more engaged, seemed to have a more positive and successful experience. This data is informative for future selection criteria for similar programs, as well as, suggesting that parental participation might be an important program component.

Why Horses?

The mothers were asked in their post-intervention interview if they thought the benefits from the program came from being together and doing something together or if the benefits were specific to the horse program. They were specifically asked is another activity such as bowling or going to dinner regularly with their child would have been as

effective or positive. All nine mothers indicated that the benefits were due in large part to the horses and the process learning to work with and ride them as well as the unique and wonderful environment at Equest. They referred to the skill mastery involved with the Horsemanship Program, the positive environment and the consistent relationship and feedback from the horse as unique and excellent components that could not be replicated in other activities.

Group Differences

Group differences between age, gender, previous horse experience and presence of animals in the home were assessed. There were no qualitative differences within the sample based on these variables.

CHAPTER FIVE

INDIVIDUAL CASE FINDINGS

Individual cases were analyzed to learn more about potential effects of the Therapeutic Horsemanship Program on children adopted from foster care and their adoptive mothers. Data from standardized measures, mother reports and instructor reports will be discussed. In addition, researcher observations will be noted and attention will be given to variables outside the control of this study that may have impacted change. This data was gathered through regular contact with the mothers including phone calls, emails and mid-term review surveys.

Mothers were asked during the initial interview what challenges they hoped would improve while participating in the Therapeutic Horsemanship Program. Throughout the program mother's were asked to rank on a scale of 1-10 (1=Best, 10=Worst) where there child was at that time on each challenges. All parents were asked about self-esteem and attachment to the mother in addition to the challenges they identified. Mothers were interviewed before and after the program and mothers in the spring, 2006, were surveyed throughout the program. The researcher was present during all riding sessions and consequently had numerous conversations with the mothers and children through out the program, often assisting with getting a horse ready or answering questions about horses or Equest.

The individual cases fall into three categories depending on their participation in the program. Three cases participated only in the fall, 2005 session, five cases participated in the spring, 2006 session and one case participated in both sessions.

Case #1 – Cathy

Cathy and her adoptive mother participated in the spring, 2006 program. Cathy's sister (private infant adoption) had been riding at Equest for many years as a therapeutic activity for her physical and cognitive disabilities. Her mother was very pleased to find out that Equest was beginning a program for children with emotional challenges as well. Cathy had ridden at several horse summer camps in the area but had never ridden at Equest. She was very excited to start the program and liked that her mother would be doing it with her.

Mother-Reported Scaled Data.

Cathy's mother reported three challenging areas in which she wanted to see improvement. They were: anger management, responsibility, and accepting no as an answer.

Figure 5.1
Case #1 Mother-Reported Scaled Data

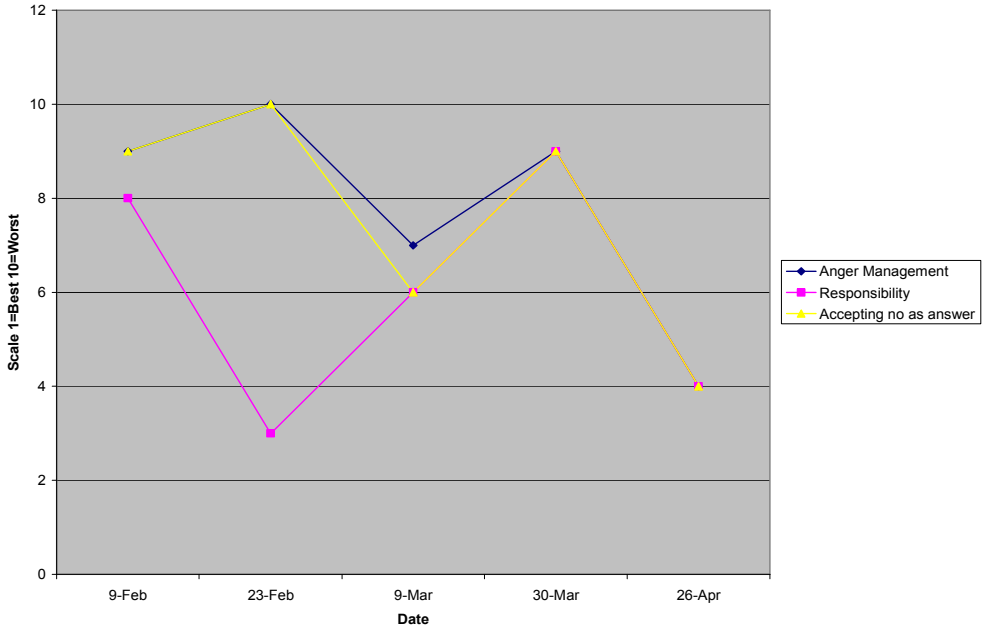


Figure 5.1 shows the scaled data from Cathy's mother on the three areas that her mother indicated as needing improvement. There were limited data points over only eleven weeks so trends must be looked at with great caution. In addition, Cathy's medications were adjusted part way through the program and likely had an impact on her behavior.

After noting the improvements, the researcher asked Cathy's mother about the changes and whether or not she felt the riding had an impact on her daughter's behavior. She felt that the medication change was helpful and that the Therapeutic Horsemanship Program also had an impact on her behavior. She indicated that part of Cathy's problem is that she can't calm herself down very well which leads to her anger problems. Her mother saw the riding twice weekly as a way for Cathy to calm down before she

escalated to a point of blowing up. She cited the school week of standardized testing as an example. Usually during testing her mother would see multiple meltdowns each day and by the end of the week Cathy would be so strung out that her behavior was beyond control. Meltdowns included screaming tantrums and extreme oppositional behavior. TAKS Testing Week landed during the second half of the Therapeutic Horsemanship Program and Cathy's mother indicated that she did struggle through the week but her behavior was manageable and she attributed that to the horses. During that week, the researcher and the instructor noticed how angry and stressed Cathy was when she entered the barn. By the end of each session that week, Cathy was being affectionate with her horse and laughing and smiling. Her mother feels the physical interaction with the horse and the riding time allowed her to decompress and then have a positive evening before the next day of testing.

> Anytime she rides, it calms and relaxes her. She enjoys horseback riding. I definitely think it helped her to ride two nights during TAKS Testing week! -mother

Standardized Measure - Child Behavior Checklist

Cathy scored in the normal range on all Competency scales in the CBCL. This is in line with her mother's report that she does not have any learning disability or physical disability. Cathy's Problem Scales and Syndrome Scales show where her major challenges are. On the Total Problem Scale and the External Problem Scale, Cathy scored in the Clinical Range on pre-test and post-test with little to no change between scores. She scored in the normal range at pre-test and post-test for the Internal Problems.

Cathy's mother continually reported that they liked the program and felt it was beneficial to their relationship, but did not experience a carry-over effect to their home life.

> Selected Quote:
> She is glad to be able to spend so much time with me but it hasn't changed our relationship at home. -mother

On the syndrome scales, Cathy scored in the clinical or borderline clinical ranges on three scales at pre-test and four scales at post-test. On the social problems and Thought problems scales she scored in the borderline clinical range at both pre-test and post-test. Cathy's mother reported that she continually has problems in social situations despite having competency in this area as seen in her social competency scores. This may reflect Cathy's mother's positive view of her daughter and willingness to persistently find services that will help her reach her potential. When asked how hopeful she is about her daughter's future, she replied that she was very hopeful because she sees how wonderful her daughter can be and is hopeful that she will grow into a happy and productive adult. On the aggressive problems scale, Cathy scored in the clinical range at pre-test and post-test which reflects her mother's report about her home behavior. Despite seeing the program as very beneficial, she did not see a change in behavior at home. Cathy scored in the normal range on the attention problems scale at pre-test and in the clinical range at post-test. This may have reflected increased stress related to school near the end of the semester or possible problems surrounding termination of the Therapeutic Horsemanship Program. It also may have been affected by her medication adjustment.

Table 5.1
Case #1 Child Behavior Checklist Scores

Scale	Pre-test Score	Percentile/ Range	Post-test Score	Percentile/ Normal or Clinical
Competence – Total	3.5	14% Normal	3.5	14% Normal
Competence – Activities	12	65% Normal	11	42% Normal
Competence – Social	8.5	46% Normal	6.5	18% Normal
Competence – School	3.5	14% Normal	3.5	14% Normal
Problem Scale – Total	52	95% Clinical	57	96% Clinical
Problem Scale – Internalizing	8	69% Normal	8	69% Normal
Problem Scale – Externalizing	24	97% Clinical	22	97% Clinical
Syndrome Scale – Anxious/Depressed	2	54% Normal	2	54% Normal
Syndrome Scale – Withdrawn/Depressed	3	76% Normal	4	84% Normal
Syndrome Scale – Somatic Complaints	3	81% Normal	2	73% Normal
Syndrome Scale – Social Problems	6	95% Borderline Clinical	7	97% Borderline Clinical
Syndrome Scale – Thought Problems	5	96% Borderline Clinical	6	97% Borderline Clinical
Syndrome Scale – Attention Problems	7	90% Normal	11	>97% Clinical
Syndrome Scale – Rule-Breaking Behavior	5	89% Normal	5	89% Normal
Syndrome Scale – Aggressive Behavior	19	>97% Clinical	17	>97% Clinical

Qualitative Data – Behavior

Cathy's mother reported two areas in which Cathy improved related to behavior during her interviews and surveys; improvement at school and reduced stress. These themes correlate with the standardized data from the CBCL. Based on the model developed in Chapter 4 and shown in Figure 4.3, Cathy was able to internalize the reduced levels of stress that she gained from riding and allow that to positively impact her time at school. The researcher observed the reduction of stress at Equest. Frequently, Cathy would come into the barn appearing sullen and withdrawn. She would say, "hi", and go about the tasks of getting her horse ready with her mother and volunteer but did not appear to be happy about being there. After time spent grooming her horse she would start to smile and interact more. Cathy had a horse who didn't enjoy being groomed and Cathy liked learning from her instructor and her volunteer different ways to make Sonny (her horse) more comfortable. During the riding lesson, the researcher frequently noticed that Cathy would be giving Sonny little neck massages to help him feel better. When asked about that, Cathy responded:

> I think he likes his neck massaged. Gail said it helps him feel better so I do it when I am waiting my turn. -Cathy

The Instructor reported that Cathy was very tuned into her horse and learned how to care for him in such a way that he was relaxed and calm. She also reported that Cathy had developed persistence in working with Sonny. She was very successful in riding Sonny because of her ability to persist in learning new ways to work with him.

> Sonny can be a difficult horse to groom and tack and Cathy worked hard to learn the best way to work with him, and she kept herself calm which helped him stay calm. - Instructor

Cathy's mother feels that a great deal of Cathy's behavior problems is related to her unresolved feelings about her birth-mother. Cathy maintains some contact with her birth-family and has seen her birth-mother a couple of times. Her mother feels that this is a big issue for her right now. Cathy has been in therapy to deal with these issues and participated in bio-feedback therapy several months before the Therapeutic Horsemanship Program with limited affect. While waiting her turn to mount her horse during one of the lessons, Cathy shared with the researcher that she might get to see her birth-mother again soon. She commented that all the kids here (in the program) have two Moms like she does. After the researcher responded that she must be pretty special to have two Moms, Cathy smiled and said, "Yeah", and then it was her turn to mount.

> I think Cathy is still trying to deal with the issue of why her biological Mom gave her up. –mother

Standardized Measure – Culture Free Self-Esteem Inventory-3

Cathy scored in the normal range at pre-test and post-test on the GSEQ. Her improvement within the normal range is of clinical interest, however. Cathy's mother reported that taking responsibility and anger management are two areas where Cathy struggles. Self-esteem can affect so many areas of a child's life that improved self-esteem may impact some of these areas over time. Cathy also showed improvement in

three of the four subscales, most notably in the academic subscale. Cathy's mother reported that the riding helps her to relax and that riding during TAKS testing week was particularly beneficial to her ability to get through that stressful week. It is possible that her mother is seeing an improvement in academics across the board due to the calming benefits of riding horses. It is also possible that her medication changes affected this area.

Table 5.2
Case #1 Culture Free Self-Esteem Inventory -3 Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Global Self-Esteem Quotient (GSEQ)*	102	55% Normal	110	75% Normal
Academic Subscale	9	37%	12	75%
General Subscale	11	63%	12	75%
Parental/Home Subscale	10	50%	11	63%
Social Subscale	11	63%	11	63%
Defensive Score**	1		1	

Note: Normal ranges are not available for the subscales.
* Raw scores between 90 and 110 are considered normal.
** Scores above 6 are indicative of non-truthful responses.

Qualitative Data – Self-Esteem

Cathy's mother reported three themes related to self-esteem during her interviews and surveys: Riding skills, interaction with horses and interaction with peers. Cathy progressed very far in her riding skills. She learned to canter and was able to learn some of the more difficult nuances of riding horses. Her mother, her instructor and the

researcher all noticed her Riding skill development as well as her growth in reading her horse's body language thereby improving her Interaction with the horses. Her mother also noted that she was social with the other children in the program and became friends with one of the other girls close to her age. The researcher also observed this friendship develop over the course of the program. The girls' mothers then coordinated their summer program so that the girls could go to camp together, feeling that the girls' friendship would be positive for them.

Standardized Measure-Parenting Stress Index-Short Form

Cathy's mother scored in the clinical ranges on the total stress and two of the three subscales at pre-test and post-test. Her level of parental distress, while staying in the normal range, actually increased at post-test. Cathy's mother reported enjoying the program but without the carry-over affects, the pleasant time she was spending with her daughter may not have been enough to affect her stress level. It is also worth noting that with stress levels so high, a one semester program may not be enough time for stress levels to be affected.

Table 5.3 Case #1 Parenting Stress Index - Short Form Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Total Stress*	103	96% Clinical	106	97% Clinical
Difficult Child (DC)	46	97% Clinical	43	96% Clinical
Parent-Child Dysfunctional Interaction (P-CDI)	36	99+% Clinical	32	96% Clinical
Parental Distress (PD)	21	25% Normal	31	80% Normal
Defensive Responding**	11		17	

*15%-80% is considered normal. ** Below 10 is indicative of possible social desirability.

Qualitative Data – Parenting tress

Cathy's mother reported three themes related to parenting stress: Sharing resources, not feeling alone and positive time with her child. She reported utilizing the other mothers for resource sharing and worked with one mother in particular to schedule their girls' camps together which would facilitate a carpool arrangement saving both of them some time. She also reported enjoying seeing that other mothers are going through some of the same challenges that she was. The researcher observed that this mother also spent more time laughing and smiling as the program progressed.

After Program Plans

At the end of the program, Cathy's mother enrolled her at Equest for the summer camp. She spoke with the researcher about being involved with any new programs that were developed and was interested in learning more about how the horses can be incorporated into the therapeutic process with children like her daughter.

Non-program changes that may have affected the case

Cathy was on a combination of medications (Geodon, Trileptal, and Lexapro) during the Therapeutic Horsemanship Program for anger, mood stability, and depression. Her Geodon increased six weeks into the program and again near the end of the program. There were no therapeutic or other activity changes during the program. In addition to the change in medication, Cathy's mother reported mid-way through the program that Cathy had not been taking her medications at school when she was supposed to, and that the school had not been following up with her. This continued to be a struggle for the remainder of the program and school year.

Case #2-Nancy

Nancy and her adoptive mother participated in the fall, 2005 program. Nancy had been in her adoptive home for less than two years when she enrolled in the Therapeutic Horsemanship Program at Equest. She had been adopted from another state and her mother reported having difficulty getting post-adoption services. She was happy to hear about this program for her daughter since her daughter had expressed an interest in learning to ride. Nancy's mother expressed some hesitation about her level of involvement indicating that she wasn't really interested in horses herself but felt it would be good for Nancy.

Mother-reported Scaled Data

This data was not collected for cases from the fall, 2005 session. Nancy's mother reported that communication with Nancy and trust building issues were the biggest challenges she faced. After the program, she reported that it had been very positive for Nancy but that she was still very concerned about how much Nancy withholds from her and refuses to discuss.

Standard Measure – Child Behavior Checklist

Nancy was in the normal range for pre-test and post-test scores on all of the competency scales. This correlates with her mother's report that she is confident and tries hard to fit in. On the problem scales, Nancy scored in the clinical range on the Total Problems and Internal Problems at pre-test and post-test. She moved from the normal range to the borderline clinical range on the External Problems. These clinical scores seem to correlate with the mother's report of Nancy. Her internal issues related to her

past seem to cause her mother the most concern for Nancy. The increase to borderline clinical range in external problems may be related to family stress that was escalating near the time of post-test. The mother's biological daughter was pregnant with her first child and gave birth just a few weeks after the end of the Therapeutic Horsemanship Program. The biological daughter was resentful of the adoption of Nancy and outwardly hostile of Nancy. The researcher also noticed the hostility about the adoption when during the initial interview at the participant's home, the biological daughter stopped by and after the researcher was introduced, she refused to say, "Hello". Nancy's mother informed the researcher that she had discouraged her to participate in the program with Nancy saying that it would take too much of her time. The mother seems to be underestimating the toll this relationship may be taking on Nancy.

On the syndrome scales, Nancy scored in the normal range on attention problems, social problems, withdrawn/depressed and rule-breaking behavior scales at pre-test and post-test. This correlates with her mother's report of her as an outgoing child who is basically a good kid all around. At pre-test, Nancy scored in the borderline clinical range on the anxious/depressed and somatic problems. These scores moved into the normal range at post-test. It is possible that the riding gave Nancy a feeling of comfort and reduced stress thereby resulting in the decrease in the scores. Nancy moved from the normal range to the borderline clinical range on the aggressive behavior scale which may again be resulting from the family stress she felt at home. Nancy scored in the clinical range at pre-test and post-test on the thought problems scale. As Nancy's mother reports, there are many things about her life that she refuses to discuss and does not want to

acknowledge. Nancy has two younger biological sisters who were adopted by another family. Nancy's mother encourages contact and feels it would be very good for Nancy but the other adoptive family is concerned about Nancy's 'bad influence' on her younger sisters. These issues combined all seem to be causing Nancy a great deal of inner turmoil. The reduction in the anxious/depressed problems and somatic complaints subscales suggests that riding may possibly give her a place to release some of the stress related to these feelings and have a positive experience.

Table 5.4
Case #2 Child Behavior Checklist Scores

Scale	Pre-test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Competence – Total	26	58% Normal	27	65% Normal
Competence – Activities	12.5	76% Normal	13	87% Normal
Competence – Social	10.5	69% Normal	9.5	58% Normal
Competence – School	3	10 % Normal	4.5	34% Normal
Problem Scale – Total	61	96% Clinical	65	97% Clinical
Problem Scale – Internalizing	20	97% Clinical	16	93% Clinical
Problem Scale – Externalizing	11	81% Normal	90	90% Borderline Clinical
Syndrome Scale – Anxious/Depressed	10	97% Borderline Clinical	7	89% Normal
Syndrome Scale – Withdrawn/Depressed	5	90% Normal	5	90% Normal
Syndrome Scale – Somatic Complaints	5	93% Borderline Clinical	4	89% Normal
Syndrome Scale –	3	79%	5	92%

Social Problems		Normal		Normal
Syndrome Scale – Thought Problems	15	>97% Clinical	16	>97% Clinical
Syndrome Scale – Attention Problems	7	90% Normal	7	90% Normal
Syndrome Scale – Rule-Breaking Behavior	2	65% Normal	2	65% Normal
Syndrome Scale – Aggressive Behavior	9	87% Normal	13	95% Borderline Clinical

Note: The mother completed the post-test CBCL one month prior to completing the program.

Qualitative Data – Behavior

Nancy's mother did not report any themes related to behavior during her interviews or surveys. She did not feel that Nancy's behavior had changed or that their relationship had changed. She did report that she noticed change in some of the other children and felt that the program was excellent for all of them.

> I thought it was very good. I thought, not just for Nancy but all the kids loved it. They just loved it. And they really bonded to it. And a lot of the mothers did much better than me. The working as a team was very good; the Mom and the child, although with me, I didn't notice much difference. But, like, David's Mom said, Oh, great difference. –mother

Standard measure – CFSEI-3

Nancy scored in the normal range for the GSEQ at pre-test and post-test. Her pre-test score, however, was at the lowest end of the normal range. At post-test, her score was above normal range. It is possible that Nancy was not answering honestly and

building herself up, but her defensive score was 2 indicating that she was not lying on the scale. The recommended cut-off score based on a normative sample is 6 (CFSEI-3 Examiner's Manual, 2002). Improvements on all four subscales support the notion that her self-esteem may have actually increased. Her positive responses to the horses and her mother's report of how important skill mastery can be for a child provide further support.

Selected Quote:

> I think it was very good for Nancy to build confidence on the horse, to hone her skills. Because she thought that, she liked the horses to begin with and always wanted to do the horses and this was just wonderful because I could nod at the horse and, so that was a great thing, the opportunity for the kids to get that opportunity to, to bond with a horse and learn all the skills. That was number one. –mother

Table 5.5
Case #2 Culture Free Self-Esteem Inventory -3 Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Global Self-Esteem Quotient (GSEQ)*	90	25% Normal	113	81% Above
Academic Subscale	8	25%	13	84%
General Subscale	7	16%	12	75%
Parental/Home Subscale	9	37%	11	63%
Social Subscale	10	50%	12	75%
Defensive Score**	2		2	

Note: Normal ranges are not available for the subscales.
* Raw scores between 90 and 110 are considered normal.
** Scores above 6 are indicative of non-truthful responses.

Qualitative Data – Self-Esteem

Nancy's mother reported five themes related to self-esteem in her interviews and surveys; Riding skills, interaction with horses, interaction with peers, self-confidence/self-efficacy, and having a successful activity. For Nancy's mother the Riding skills and learning how to interact with the horses and the benefits they got from that in terms of self-confidence was the critical aspect of the program.

Selected Quotes:

> I see the biggest purpose, the biggest plus for this program is the child mastering a relationship with an animal and, you know, getting up on that big horse and doing all those things that look real scary and them feeling like they mastered it. For me, that's the greatest thing about it. -mother

> No, no, this is, to me, this is mastery of skills. I mean, bowling is bowling, it's fun; it's going to the movie with your kids, that's fun. But that doesn't make them feel like, wow, I mastered this. With or without my mom, look what I can do. So I think that's a great, no, that's not like bowling to me. It's not just an activity, I mean, it's to me It's mastery. I mean, that, to me, to get up on that horse takes a lot of nerve, and I'm sure a lot of them had great fears inside of them and to be able to say, 'Look at this, hey, if I got up on that horse and if I could do all that stuff, I think, wow, look what I did'. See? And I can't do that, but I saw each of them, and I really liked the way that Lili would compliment them and say, 'Wow, way to go.' That positive reinforcement I thought was great. -mother

The self-confidence/self-efficacy theme was also observed by the researcher. The following story is an example of this theme as experienced and observed by the researcher.

> Selected Quote:
>
> During horse change week, Nancy rode a horse who required a different saddle from the one she had been riding in. She appeared uncomfortable in the saddle and her awkward body position was causing the horse to respond to her unfavorably. The instructor worked with her to adjust her body position but Nancy was unable to correct it enough to positively impact the horse. After the lesson the researcher asked Nancy how her lesson went. She dropped her eyes and said she had trouble with her body position but was going to keep trying at next lesson. It was unusual for Nancy to not make eye contact and knowing her history of sexual abuse the researcher asked if she was comfortable with the new horses and new saddle. After a moment of silence the researcher offered that there might be a way to change the saddle and make it more comfortable if the Instructor knew there was a problem. After a short discussion, Nancy agreed to talk with the Instructor who offered a solution to alleviate the discomfort. The next lesson was much improved and Nancy no longer had the awkward uncomfortable body position and her horse responded very well. At the end of the program, Nancy wrote a note thanking the researcher for the courage to tell the Instructor about her saddle problem. -researcher

It is unknown if this lesson will stay with Nancy, but the fact that she mentioned it several weeks later in a thank-you note indicates that she may have learned a new skill that she feels good about and that will help her in future situations when she needs assistance from an adult.

Standard Measure – PSI-SF

Nancy's mother scored in the normal range on all of the PSI-SF scales. She did move from the low end of the normal range to high end of the normal range. This seems to be consistent with her reports of getting ready to be a Grandmother for the first time. She was spending a great deal of time sewing and preparing items for her daughter and the baby. This in combination with the additional behavioral challenges that Nancy was exhibiting would naturally escalate her stress levels. It is not anticipated that this stress level would remain high.

Table 5.6
Case #2 Parenting Stress Index - Short Form Scores

Scores	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Total Stress (15%-80% normal)	60	23% Normal	82	80% Normal
Difficult Child (DC)	22	30% Normal	31	80% Normal
Parent-Child Dysfunctional Interaction (P-CDI)	16	35% Normal	21	60% Normal
Parental Distress (PD)	22	30% Normal	30	75% Normal
Defensive Responding (< 10 problematic)	14		17	

Note: The mother completed the last PSI-SF one month prior to completing the program.

Qualitative Data – Parenting Stress

Nancy's mother did not report any benefits related to stress in her interviews or surveys although the researcher did notice her sharing resources and ideas with other mothers throughout the program. Nancy's mother did not seem to enjoy the horses. She

liked to see Nancy succeed but unlike the other mothers, she did not want to participate in grooming and tacking the horse or with assistance in the riding arena. Nancy was somewhat bothered by this and often preferred to have her volunteer help her rather than her mother. On a couple of occasions, Nancy's father brought her to Equest when her mother wasn't able to and she liked the opportunity to show him what she had learned. He seemed more comfortable with the horses which Nancy responded to. The following story from researcher field notes exemplifies some of the problems for Nancy when her mother didn't participate in the program in the way she wished she would.

> Selected Quote:
>
> Nancy and her mother brought apples and carrots for the horses at Equest tonight. They were feeding them to Jazz (Nancy's favorite horse). Her mother started feeding some to another horse and commented that she liked this one better than Jazz because of the funny way he ate the apples. Nancy tried to get her mother to come back to Jazz's stall to feed him but her mother stayed with the other horse. Nancy told her volunteer that her mother liked the other horse better than Jazz. –researcher

The issue of Nancy's mother feeding other horses came up several times after that incident. Given the current attention on the coming grandchild, the feelings about which horse her mother fed apples to may have been reflecting more personal feelings for Nancy. The researcher mentioned this to Nancy's mother when she was sharing a story about Nancy but she didn't see the connection.

After Program Plans

Nancy was the oldest child in the program and was almost of the minimum age to volunteer at Equest (14 years). Her mother had enrolled her in summer camp at Equest and had agreed that Nancy could volunteer once a week at Equest after she turns 14. The following fall, the researcher confirmed that she had begun volunteering when she saw her at Equest during a visit.

Non-program changes that may have affected the case

Nancy was not on medication during the program and there were no therapeutic or other activity changes. Nancy's adoptive parents' oldest child was pregnant and due towards the end of the program. Nancy's father came in place of her mother several times near the end of the program while her mother was helping prepare for the new baby. This didn't seem to bother Nancy and she mentioned several times that her Father was much better around the horses and she enjoyed showing him her accomplishments.

Case #3 - Jon

Jon participated in the fall, 2005 session of the program. Jon's mother reported that she enrolled in this program because she is desperate to try anything to help her children. Jon is the oldest of an adopted sibling group of three. This family adopted transracially, the parents are Caucasian and the children are African American. Jon had been in play therapy for several years prior to coming to Equest but his behavior was still very aggressive and often violent.

Mother-reported Scaled Data

This data was not collected for cases from the fall, 2005 session. Jon's mother reported that defiance, violence and attachment were the three biggest challenges they faced with Jon. At the end of the program his mother had mixed feelings. She was very pleased with the program but hadn't seen a lot of improvement at home, possibly due to issue with his medication.

Selected Quote:

> Well that's really difficult because I think some of his medications have not been very effective. So, I think if he had been on the right mediation mix, that we possibly would have soon, seen a, more improvement. -mother

Standardized Measure - Child Behavior Checklist

Jon scored in the normal range on all of the competency scales at pre-test and post-test. His mother feels that he is very capable and reports that he has friends at school and seems to do well at school which correlates with his normal range competency scores. Jon scored in the clinical range on all Problems scales at pre-test and post-test which is consistent with the behavior that his mother reports at home. The aggressive behavior that she describes includes physically assaulting his younger sisters and threatening her with sharp objects.

Jon scored in the normal range at pre-test and post-test for four of the Syndrome Scales; Anxious/Depressed, Somatic Complaints, Social Problems, and Attention Problems. His scores moved from the borderline clinical range to the clinical range on the withdrawn/depressed subscale and from the normal to clinical range on thought

problems. His rule-breaking behavior and aggressive behavior scales were in the clinical range at both pre-test and post-test. Several weeks after the completion of this program, Jon was hospitalized for extreme aggressive behavior and concerns and his thought process. His mother reported that his stay in the hospital did help but that she was still very concerned about his aggression and about the safety of her daughters and was working with LSSS to identify potential residential treatment centers.

Table 5.7
Case #3 Child Behavior Checklist Scores

Scale	Pre-test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Competence – Total	23.5	42% Normal	23	38% Normal
Competence – Activities	10.5	31% Normal	11.5	46% Normal
Competence – Social	7.5	34% Normal	7.5	34% Normal
Competence – School	5.5	62% Normal	4.0	16% Normal
Problem Scale – Total	77	>98% Clinical	83	>98% Clinical
Problem Scale – Internalizing	13	93% Clinical	15	96% Clinical
Problem Scale – Externalizing	36	>98% Clinical	34	>98% Clinical
Syndrome Scale – Anxious/Depressed	5	81% Normal	4	76% Normal
Syndrome Scale – Withdrawn/Depressed	5	97% Borderline Clinical	8	>97% Clinical
Syndrome Scale – Somatic Complaints	3	87% Norma	3	87% Normal
Syndrome Scale – Social Problems	4	79% Normal	5	84% Normal
Syndrome Scale – Thought Problems	5	92% Normal	9	>97% Clinical
Syndrome Scale –	7	81%	8	87%

Attention Problems		Normal		Normal
Syndrome Scale – Rule-Breaking	10	>97% Clinical	8	>97% Clinical
Syndrome Scale – Aggressive Behavior	26	>97% Clinical	26	>97% Clinical

Qualitative Data – Behavior

Not surprisingly, Jon's mother did not report any improvements in regards to behavior in her interviews or surveys. The researcher noticed Jon making eye contact more frequently with his horse while grooming him and with the researcher when she spoke to him. This waned throughout the program, however, and the researcher noticed Jon being less engaged during his riding lessons. He would make one effort to get his horse to do what he wanted and then quit if the horse didn't respond immediately.

Standardized Measure – Culture Free Self-Esteem Inventory-3

Jon scored in the normal range on the GSEQ and did increase from the bottom of the normal range to near the top. He also increased in the academic, general and parental/home subscales. This may indicate that the program did have a positive affect on his self-esteem. It may also indicate that many of his difficulties rest in his relationship with his family and the individual time he and his mother spent together may have been beneficial.

Selected Quote:

> Well, I liked the consistency. Lili is an excellent instructor and I liked the way she handled the kids. You know, she didn't treat them as kids, she treated them like students. And I thought that was, was really good. I liked the responsibility that the kids had to take, to take care of the horses. I liked that part. -mother

When we would drive out there to go, Jon would be, he wouldn't, he wasn't talking. And, not, almost withdrawn. And, so, so when we would finish the session, he would talk. All the way back. All the way back. And it was all about JJ (the horse) and what they did and, and everything. And he was really, he would be very animated, and so I just felt like that was, that would be worth continuing. [Is this different from when you bring him home from other activities?] Yes. He would, with those occasions, he'd just be quiet and, not necessarily quiet but he wouldn't necessarily talk about what happened in the soccer team and, 'Did you see this and did you see that?' And so, I just had a lot more interactive after the sessions than he would be, say with playing soccer. -mother

Table 5.8
Case #3 Culture Free Self-Esteem Inventory -3 Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Global Self-Esteem Quotient (GSEQ)*	90	25% Normal	107	68% Normal
Academic Subscale	6	9%	9	37%
General Subscale	8	25%	12	75%
Parental/Home Subscale	10	50%	13	84%
Social Subscale	10	50%	10	50%
Defensive Score**	1		1	

Note: Normal ranges are not available for the subscales.
* Raw scores between 90 and 110 are considered normal.
** Scores above 6 are indicative of non-truthful responses.

Qualitative Data – Self-Esteem

Jon's mother reported three themes related to self-esteem; Riding skills, interaction with horses and interaction with mother. She felt that he learned a lot about riding and working with the horses and was surprised by how much he liked it.

> Selected Quote:
> The sessions increased the bonding and I, I think that helped and then just, you know, he was doing better each time and so he saw improvement and so I think that increased his confidence level and he has just been real enthusiastic about it. Yeah, he's, I asked him if he, if you know he liked riding, 'Yeah.' 'Well did you like it better than other sports?' And I said, and I listed a whole bunch of them; he kept picking riding over each of the other ones. -mother

She further reported that she felt that their interaction, their relationship was improving in some ways. She noted that the individual time together was important and the program was designed to facilitate that time together. His increased responsibility and skill development with the horses gave him a feeling of confidence and responsibility.

> Selected Quotes:
>
> I liked spending that time one-on-one on him, especially with having two other kids, there's not, there's not a lot of opportunity for that, unless you, you know, you have to schedule it, you have to set aside a specific time to do it, it's really difficult. –mother
>
> And the reason why is because, you're in a confined stall, you're both brushing, you're both combing at the same time, and so you know, you're within a few feet of each other, there's more opportunity for eye contact. And you have to remember, this is, Jon is just a kid that, we don't have a diagnosis of attachment disorder, but he certainly has a lot of symptoms of it. And, I have not wanted to, I

> have not wanted to label him with that because of all the connotations that it has but, there's certainly lots of attachment issues there. So, I don't know that with bowling you have the opportunity for eye contact, or the intimacy, that you have with being in a more confined space. It's a quieter surrounding, too. And, and then also with the kid that has attachment issues, you know, they're very self, self-absorbed, and so having him responsible for another living being, I think was incredibly beneficial for him because that is not his natural tendency, at all. And the fact that he had to put something other than himself first, not by choice, it wasn't his choice, if it would have been his choice, we would have left immediately after it and gone to McDonald's for a treat, that is his choice. –mother
>
> Well, at first he was real reluctant and we had, you know, the volunteer and I would have to remind him that, no, he couldn't just go off, he had to come back. And take care of JJ before we could leave or whatever. And so, that's, after a few weeks, he kind of got into that routine, and he knew that he had to do that. And I, I think that was helpful, because he couldn't just ride, have the fun, and not have the responsibility and the work that goes along with it, you know. -mother

Standardized Measure – PSI-SF

Jon's mother scored in the clinical range on all scales of the PSI-SF. This is not surprising given the level of behaviors that she is dealing with in her son. In addition, her daughters were beginning to display more disruptive behaviors will little benefit from therapy. She did score lower on the parent distress subscale at post-test and although it did not move her into the normal range, it is possible that her time with Jon in a calm and relaxed environment had some positive impact on her stress level.

Table 5.9
Case #3 Parenting Stress Index - Short Form Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Total Stress*	120	99+% Clinical	120	99+% Clinical
Difficult Child (DC)	44	98% Clinical	49	99+% Clinical
Parent-Child Dysfunctional Interaction (P-CDI)	39	99+% Clinical	41	99+% Clinical
Parental Distress (PD)	37	93% Clinical	30	75% Clinical
Defensive Responding**	23		18	

*15%-80% is considered normal.
** Below 10 is indicative of possible social desirability.

Qualitative Data – Parenting Stress

Jon's mother reported three themes related to parenting stress: Sharing resources, not feeling alone and positive time with child. The researcher also observed times when Jon's mother was enjoying the company of the other mothers and sharing ideas and resources. Although she enjoyed the time with the other mothers, she recommended that a more formal support would be beneficial.

Selected Quote:

> I don't know if anything more formal would, I mean, as far as work with the kids for an hour and then you have thirty minutes, I don't know. I don't know if that would be something that would be good to incorporate or not. Maybe a more structured thing with a group leader. A facilitator of some type would be, perhaps helpful. Cause, I certainly, I know that certainly it's been difficult for us to plug into a support group just because of time issues of that. And I'm, I've, it seemed like the same is true for the other Moms too. –mother

After Program Plans

At the time Jon completed his session in December of 2005, his mother had already signed him up for the regular Equest program for the spring session. Jon took riding lessons at Equest on Saturday. His Father brought him out but he was absent for many classes due to conflicts. In addition, when a spot opened up for the spring session of this program, Jon's mother enrolled again, this time with her middle child, Case #4.

Non-program changes that may have affected the cases

Jon was on a combination of medications for depression, anxiety and aggression. His medication regime changed several times throughout the Therapeutic Horsemanship Program. There were no therapeutic or other activity changes. Following Jon's completion of the program his behavior became much worse. He stayed enrolled at Equest in their sports Therapeutic Horsemanship Program but missed many weeks due to his behavioral challenges. He became violent towards his siblings and towards his parents. He was hospitalized several times throughout 2006 and placed in RTC one year later with a dual conservator-ship with the state.

Case #4-Tammy

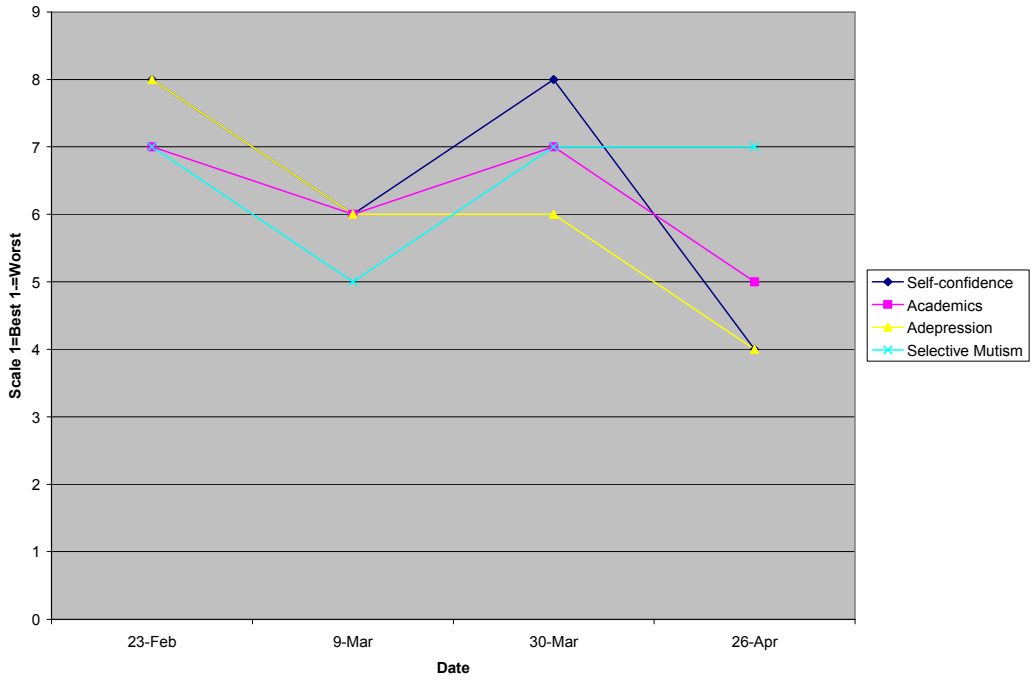
Tammy is the second child from this family to participate in this program and the second session for the mother to participate. Jon, Tammy's biological brother was adopted by the same family and he and the adoptive mother participated in the fall session of this program. Tammy's mother jumped at the opportunity for Tammy to participate in the program after a participant dropped out at the last minute. Despite Jon's

ongoing challenges she felt very positive about the program and believed it would be beneficial for Tammy as well.

Mother-reported Scaled Data

Tammy's mother reported four challenging area in which she wanted to see improvement in the behavior. They were: self-confidence, academics, depression and selective mutism.

Figure 5.2
Case #4 Mother-Reported Scaled Data



This graph shows a slight trend towards improvement (downward slant) in Tammy's four areas of challenges identified by her mother. She reported a lot of improvement in her self-confidence and depression. She also believes that the Therapeutic Horsemanship Program was affecting her academics. Although this was not initially assessed for, Tammy's mother reported an improvement in her handwriting and

her participation her classroom at school. Tammy's teacher at school reported an improvement in her hand-writing during the same week that the riding instructor reported a dramatic improvement in her rein management. The instructor reported that for several weeks Tammy had a great deal of difficulty in learning how to pick up and manage her reins and that she improved greatly after a few weeks into the program. Tammy's mother was asked if the school had been providing services related to her recent diagnosis of dyslexia. She responded that the school had not made any changes and that Tammy was not receiving any additional services related to academics.

Selected Quote:

> She is remembering how to hold the reins. She appears to be doing better at school. I think it did help her with her confidence, and her ability to control a situation. And I'm, you know, I want to, I felt like she was really gaining a lot in self-confidence there at the end. I noticed some improvement in her handwriting this semester. And that was the only difference that I can see that would account for that. Because there wasn't, she wasn't doing any physical therapy or occupational therapy this year. So that's the only thing that I could see that would make that much difference in her handwriting. I think her teachers did. I mean it was very noticeable to me. -mother

Standardized Measure – Child Behavior Checklist

Tammy's scores on the Competency scales of the CBCL are not particularly helpful due to several 'no scores' resulting from missing data. Due to a 'no score' in each of the subscales, the Total Competency can not be scored either. In the Activities Competency Scale, however, her scores moved from the borderline clinical range at pre-

test to the normal range at post-test. This is consistent with the mother's reports of skill development that was also noticed by the Instructor and researcher.

> Selected Quote:
>
> I think her balance has improved. She doesn't seem so clumsy at home. She's becoming more comfortable with the voice commands. I think her motor skills are improving. -mother

Tammy scored in the clinical range for all of the Problem scales with no movement between pre-test and post-test. Additionally, she scored in the clinical range at both pre-test and post-test on three syndrome scales; anxious/depressed, social problems and aggressive problems. These clinical scores may reflect the chaos that is going on inside of the family. Dealing with Jon's aggression and violence has been extremely difficult and their mother has reported that both Tammy and her younger sister are increasingly scared of Jon and are escalating in their acting out behavior. Tammy's scores moved from the borderline clinical range to the clinical range on the withdrawn/depressed and attention problem scales, further showing her response to the chaos she is trying to deal with. She scored in the normal range on the somatic complaint, thought problem and rule-breaking behavior scales.

Table 5.10
Case #4 Child Behavior Checklist Scores

Scale	Pre-test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Competence – Total	no score	no score	no score	no score
Competence – Activities	6.5	5% Borderline Clinical	10.5	31% Normal
Competence – Social	4.0	4% Borderline Clinical	no score	no score
Competence – School	no score	no score	2.0	<3% Clinical
Problem Scale – Total	69	>98% Clinical	85	>98% Clinical
Problem Scale – Internalizing	21	>98% Clinical	25	>98% Clinical
Problem Scale – Externalizing	18	96% Clinical	18	96% Clinical
Syndrome Scale – Anxious/Depressed	13	>97% Clinical	15	>97% Clinical
Syndrome Scale – Withdrawn/Depressed	5	95% Borderline Clinical	9	>97% Clinical
Syndrome Scale – Somatic Complaints	3	87% Normal	1	62% Normal
Syndrome Scale – Social Problems	10	>97% Clinical	15	>97% Clinical
Syndrome Scale – Thought Problems	1	54% Normal	3	79% Normal
Syndrome Scale – Attention Problems	10	97% Borderline Clinical	11	>97% Clinical
Syndrome Scale – Rule-Breaking Behavior	2	69% Normal	2	69% Normal
Syndrome Scale – Aggressive Behavior	16	>97% Clinical	16	>97% Clinical

Note: The mother filled out the Pre-test one week into the program.

Qualitative Data – Behavior

Tammy's mother reported two themes related to self-esteem in her interviews and surveys: Improvement in school and reduced stress. The improvements in school were

first noticed with the improvement in handwriting. This improvement was noticed by her mother and teacher during the same week that the Instructor noticed a marked improvement in Tammy's ability to hold her reins properly. Rein management is a skill that many children struggle with when learning to ride. Tammy was diagnosed with dyslexia several weeks prior to beginning the program at Equest. She was not given services at school or at home to address the dyslexia and her mother feels that the improvement was due to the Therapeutic Horsemanship Program and the skills she was learning with regard to rein management.

She further reported that Tammy seemed to relax and feel comfortable more at Equest than at other locations. She has selective mutism which is often exacerbated by stress. Tammy began communicating verbally and engaging in the program after only a few weeks. Despite her selective mutism she was able to use a loud voice when walking her horse through the barn aisle to alert people that a horse was coming through (this is an Equest safety rule and often difficult for children like Tammy).

Selected Quote:

> She did (talk more and participate), and that's not necessarily uncommon for her, once she gets familiar and comfortable with the situation, she will start talking more. So, that's kind of her pattern. But, it did, I will have to say it was probably quicker than it would have been otherwise. Because, like for example, when she was in kindergarten, it probably took three, almost mid-semester, almost to December, you know, having started in August for her to be really comfortable in talking. And that's going five days a week for three or four hours. So, now, I think some of that was maybe, you know, maturing a little bit, but still. You know, it was fairly quick for her at Equest. -mother

Standardized Measure – CFSEI-3

Tammy's scores on the GSEQ were in the clinical range at both pre-test and post-test. Her post-test score, however, was approaching the normal range indicating a clinical improvement from the pre-test score. It is possible that if Tammy were to continue at Equest and continue to have this measure taken that her scores would move into the normal range. Her improvement in the academic subscale is consistent with her mother's and teacher's reports of school improvement.

Table 5.11
Case #4 Culture Free Self-Esteem Inventory -3 Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Global Self-Esteem Quotient (GSEQ)*	77	6% Clinical	87	16% Clinical
Academic Subscale	6	9%	9	37%
General Subscale	8	25%	7	16%
Parental/Home Subscale	7	16%	7	16%
Social Subscale	5	5%	9	37%
Defensive Score**	3			

Note: Normal ranges are not available for the subscales.
* Raw scores between 90 and 110 are considered normal.
** Scores above 6 are indicative of non-truthful responses.

Qualitative Data – Self-Esteem

Tammy's mother reported five themes related to self-esteem: Riding skills, interaction with staff and volunteers, interaction with horses, self-confidence and self-efficacy, and having a successful activity. Tammy's mother was amazed by how well

Tammy's skills progressed. She noted her improvement in balance and motor skills and related that to her mastery of skills. After horse change week the instructor observed an even greater improvement in her skill development, noting the following:

> Selected Quote:
>
> … the skills seem to be coming more naturally to her now that she has had to transfer them to another horse and then back to her original horse. That shows a great level of skill mastery. -Instructor

Tammy became more verbal and interactive with the staff and volunteers after the first few weeks of the program. This was noted by her mother, the instructor, the researcher and her volunteers. One evening when Tammy's mother had to work, her Father brought her to Equest and she went right to the tack room to find her riding helmet and volunteer and told her that her mother wasn't there tonight but she was! The volunteer was surprised by the amount of verbal communication without Tammy's mother around. Over time she became self-confident and her instructor began to allow her to trot her horse independently while other riders were trotting their horse at the same time. This can be difficult for new riders because they must attend to themselves, their horse and all of the other riders and horses to prevent a traffic jam. Her instructor noted that she was becoming assertive in making decisions about where her horse should go and learning to plan ahead with her horse so that she didn't run into someone ahead of her who may have been slowing down. The instructor noted how quickly she learned these skills and Tammy's mother was continually impressed with her self-confidence and take-charge attitude while at Equest.

Selected Quotes:

I think her self confidence has increased and her self-esteem seems higher. –mother

I had noticed that too [that she was more talkative and more confident]. As Tammy becomes more familiar with a situation she will relax and become more engaged. -mother

I don't think there has been a significant change for me [in my relationship with Tammy] but it has been good for Tammy to have undivided attention. -mother

Tammy did struggle with some aspects of the program. She was rarely able to participate in the group conversation at the end of each lesson. Her mother felt that her selective mutism and IQ may have been preventing her from participating in this part of the program and understanding the nuances of some of what the other children were talking about.

Selected Quote:

The talking about questions, etc has been difficult for Tammy due to her selective mutism. Her emotional maturity and IQ level has made it hard for her to understand the nuances. -mother

Standardized Measure – PSI-SF

Tammy's mother continued to score in the clinical range on the parenting stress scales as she had been scoring during the fall session with Jon. Her parental distress score had dropped at the end of the fall program but then went back up by the time she took the pre-test for the spring session. This might have been due to Jon's hospitalization

and all of the stress surrounding the preceding events and the decision to hospitalize him. The parental distress score did drop again at post-test indicating that participating in the program may assist in decreasing her parental distress since it has happened twice; once in the fall session and once in the spring session.

Table 5.12
Case #4 Parenting Stress Index - Short Form Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Total Stress*	125	99+% Clinical	121	99+% Clinical
Difficult Child (DC)	43	96%	46	97%
Parent-Child Dysfunctional Interaction (P-CDI)	43	99+%	42	99+%
Parental Distress (PD)	39	95%	33	85%
Defensive Responding**	25		21	

*15%-80% is considered normal.
** Below 10 is indicative of possible social desirability.

Qualitative Data – Parenting Stress

Tammy's mother reported the same themes related to stress during this session as she did with Jon in the fall session: Sharing resources, not feeling alone and positive time with child. During the spring session, the researcher noticed Tammy's mother interacting with the other mother's more than she had in the fall session. This may be due to a comfort level with the program obtained after participating for so long or perhaps due to different personalities and a different group dynamic with the spring session mothers. She reported enjoying time with the other mothers and enjoyed the one-on-one time with her daughter.

Selected Quotes:

> It's something that we both enjoy. The physical aspect has been good for Tammy. I enjoy the volunteers and instructors at Equest – they've been great. I hope Equest will continue to support opening their program to emotionally challenged children. -mother

> It's been pleasant to visit with the other mothers. -mother

After Program Plans

At the end of the spring program, Tammy's mother was working to enroll three of her children into the summer camp at Equest, including her youngest daughter who had not yet ridden at Equest. She joked that the program turned her family into a "horse family." She had enrolled all three children in summer camp at Equest and was looking forward to enrolling them in the fall program as well.

Non-program changes that may have affected the cases

Tammy was diagnosed with dyslexia during the first week of the Therapeutic Horsemanship Program. Her mother reported that despite several meetings with the school, no services were provided during the spring semester while she was riding. Tammy was on a combination of medications (Zoloft, Gabitril, and Abilify) for depression, anxiety, and anger. Her medication regime was stable throughout the Therapeutic Horsemanship Program. There were no therapeutic or other activity changes.

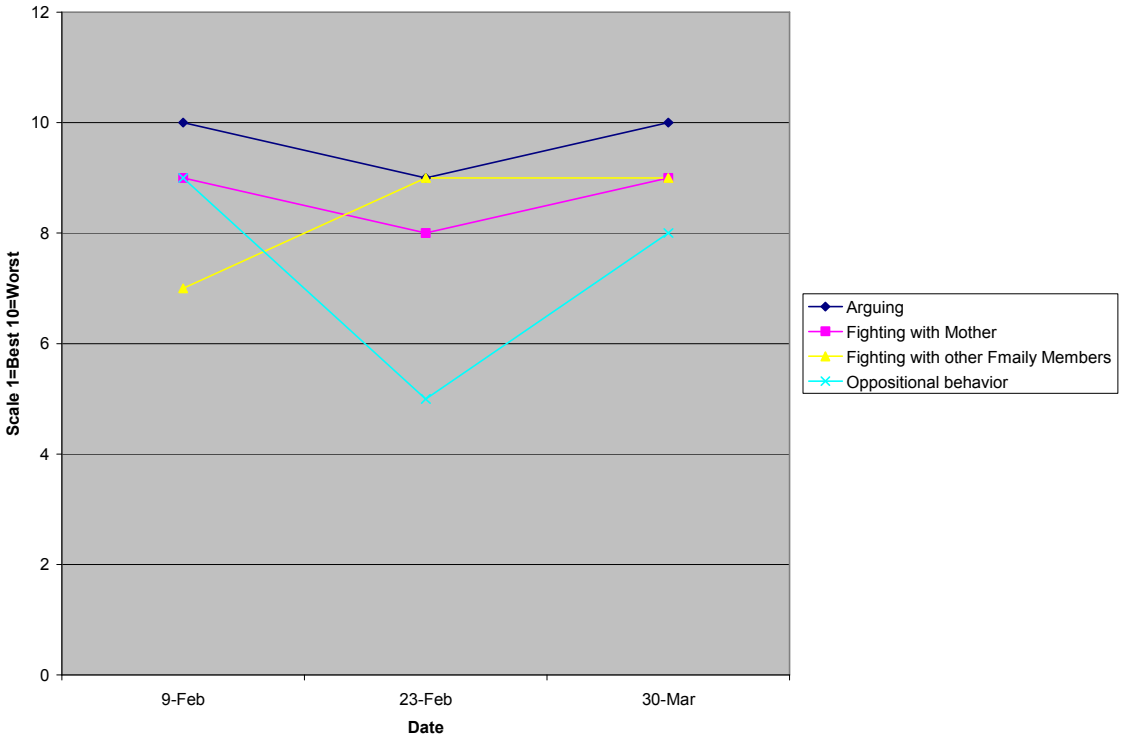
Case #5 – David

David and his mother participated in both fall and spring sessions. This was due to a last minute drop for the spring session. There was not time to recruit a new family for the spot so rather than allow it to go to waste it was offered to any fall participant who wished to continue. David's mother and Jon's mother both wanted their children to continue. The researcher flipped a coin and David was offered the spot. Jon's mother was later offered another opening and chose to enroll her daughter Tammy since she had already enrolled Jon in the regular Equest spring program. After the first class of the fall session, David's mother approached the researcher and said that the hour an a half was the first time she could remember having fun with her son in a very long time. She was amazed at how excited he was to be around the horses and looked forward to what the program would bring.

Mother-Reported Scaled Data

David's mother reported four challenging areas in which she wanted to see improvement in the behavior. They were: arguing, fighting with mother, fighting with other family members, and oppositional behavior.

Figure 5.3
Case #5 Mother-Reported Scaled Data



Scaled data from David's mother was only collected for the spring session despite David riding in both sessions. During most of the spring semester David was off of his medication due to an insurance problem. David's mother reported more positive behavior during the fall semester and the medication issue may have been the cause for the lack of progress in his behavior during the spring session. His mother stated that she was very glad to be in the program during the period of time that David was off his medications as she believed that his motivation to ride and not miss his classes at Equest helped curb the behavior from becoming even more out of control.

Standardized Measures – Child Behavior Checklist

David's score on the Total Competency Scale was not computed for the second post-test score due to some missing data in the school competency scale. The total competency did, however, move from the borderline clinical range to the normal range of the course of the first session of riding for David. The remainders of his competency scores were in the normal range at pre-test and post-test with the exception of the social competency which dropped to clinical range after the completion of the second session of riding. By the end of the session, David was back on his medication, although so much time off of it compounded with ending the Therapeutic Horsemanship Program that he enjoyed so much may have caused this score to drop.

David's scores on the problems scales showed improvement after the completion of the second riding session. His total problem and external problem scores moved from clinical range for the pre-test and post-test for the fall group into the normal range for the post-test from the second group. His internal problems scores were in the borderline range for the first two testing points and dropped into the normal range at the post-test scoring period after the second riding session. This may suggest that for children with such extreme behavioral challenges one semester of riding, despite being twice a week is not enough, but that ongoing exposure to this program may have a more positive impact on behavior.

Selected Quotes:

> Before this program David didn't care if he was in time-out. If we took things away from him, he didn't care. He would keep doing what he was doing even after time-out.

> He didn't care about anybody but himself. Now he listens (most of the time) and when I tell him that we are not going to Equest his behavior changes. There was only one time we didn't go because of his behavior and now he knows that I love him but his behavior has to stop and it does. -mother

> And, you know, it was like, that was something he was looking forward to so he was trying, I think he was really trying to be good even though he didn't know how. -mother

For five of the eight Syndrome scales, David scored in the normal range across the testing periods. For three of the scales, he moved from the clinical range to the normal range by the end of the second riding session. These scales were withdrawn/depressed, rule-breaking behavior and aggressive behavior. The improvement in these areas reflects his mother's report that his passion for riding horses gives him the motivation needed to control his behavior, even when he is off his medication for periods of time.

Selected Quote:

> Well, I knew that he liked horses. I didn't really know until, exactly how much until that night. I mean, I knew that he liked riding because of, you know, on Tuesdays and Thursdays because he would, 'Okay, Mom, this is the day we go.' I mean, every Tuesday and Thursday he would not let me forget. So, and you know, I knew that he did have an interest, but I just found out a lot more about it the last night. -mother

Table 5.13
Case #5 Child Behavior Checklist Scores

Scale	Pre-Test Score	Percentile/ Range	Post-Test-1 Score	Percentile/ Range	Post-Test-2 Score	Percentile/ Range
Competence – Total	20	12% Borderline Clinical	21.5	21% Normal	No Score	No score
Competence – Activities	10	24% Normal	10	24% Normal	9	16% Normal
Competence – Social	6.5	24% Normal	6	18% Normal	2	<3% Clinical
Competence – School	3.5	8% Normal	5.5	62% Normal	No Score	No score
Problem Scale – Total	58	97% Clinical	53	93% Clinical	26	62% Normal
Problem Scale – Internalizing	10	87% Borderline Clinical	10	87% Borderline Clinical	3	42% Normal
Problem Scale – Externalizing	26	>98% Clinical	31	>98% Clinical	14	89% Normal
Syndrome Scale – Anxious/Depressed	2	54% Normal Range	2	54% Normal Range	0	<=50% Normal Range
Syndrome Scale – Withdrawn/Depressed	8	>97% Clinical	7	>97% Clinical	2	79% Normal
Syndrome Scale – Somatic Complaints	0	<=50% Normal	1	62% Normal	1	62% Normal
Syndrome Scale – Social Problems	6	89% Normal	3	73% Normal	3	73% Normal
Syndrome Scale – Thought Problems	5	92% Normal	4	87% Normal	4	87% Normal
Syndrome Scale – Attention Problems	6	76% Normal	2	54% Normal	1	<=50% Normal
Syndrome Scale – Rule-Breaking Behavior	7	>97% Clinical	8	>97% Clinical	3	76% Normal
Syndrome Scale – Aggressive Behavior	19	>97% Clinical	23	>97% Clinical	11	92% Normal

Note: Post-test 1 was administered after the completion of the fall session, post-test 2 was administered after the completion of the spring session.

Qualitative Data – Behavior

David's mother reported four themes related to behavior in her interviews and surveys; Insight into to behavior from the horses, improvement at home, following directions and persistence. For David, gaining insight into his behavior from the horses was noticed by his mother, his Instructor and the researcher. The following story from the researcher's notes explains how this happened for David.

Selected Quotes:

> David had been riding Lightnin'Bug during the fall session, a horse that he chose. Lightnin'Bug was a pony with a lot of attitude who was often difficult for David to manage but he worked hard and often successful with Lightnin'Bug. Despite the pony's stubbornness, David had developed a relationship with the pony and he cared for him very much. During horse change week, the Instructor assigned David to Daybreak, a very well trained pony who was much easier to ride and handle than Lightnin'Bug, she felt that David deserved this pony after all of his hard work with Lightnin'Bug. At the end of the horse change week David was faced with choosing whether or not to stay with Daybreak who he was enjoying or go back to Lightnin'Bug who he loved. This decision was very difficult for him. After much deliberation he made a deal with his Instructor and his mother, he would keep riding Daybreak so that his skills could improve if they would allow him to come to Equest early on lesson nights so that he could groom and take care of Lightnin'Bug before having to get Daybreak ready for his lesson. His Instructor and mother agreed to the arrangement and that is what occurred for the rest of the session. His mother later informed the researcher that on the way home in the car that night she had asked David why he decided to keep riding Daybreak when he loved Lightnin'Bug so much. He told her that he was trying to be good and he needed to be riding a pony that tried to be good too and Daybreak tried harder to be good than Lightnin'Bug did. -researcher

> Sometimes I think he'd rather be with the horse than with one of us. And, he talks about, well, even Lightnin'Bug, even though he switched to Daybreak, he talks about both of the horses all the time. –mother

> Yeah, I, up until the first time we went, you know, I've never thought about a horse and, and humans are, you know, they're a lot alike, you know. And, they're like, you know, when we first started out, I could see David and Lightnin'Bug, I mean, those two were exactly the same. And then when this last time with Xena (David's spring session horse), how Xena was more calm and all, I could see that in David. So I, yeah, I think it's great that horses and this program was using the horses. -mother

David's mother also reported her son's persistency in working with Lightnin'Bug. She stated that he often gets bored with an activity or looses interest but with Lightnin'Bug, despite the challenges, he stuck with it and kept working with the pony until he was successful. This was supported by his instructor's frequent reports of how well David is doing with a difficult pony. Early on in the fall session, David's Instructor gave him the opportunity to be assigned a different horse because she saw how difficult things were getting for him. David said he wanted to stick with Lightnin'Bug and learn how to be successful with him. He ended up being very successful and even learned how to canter (by accident) on the pony. During one of the lessons, Lightnin'Bug got a little bit too fast and broke into a canter. David was able to listen to his instructor and regain control of the pony: and although it scared him a little, he felt very proud of his accomplishment.

Despite David's progress with his riding skills, his mother reported a great deal of behavior problems at home and she decided that David was only allowed to attend Equest

when his behavior was satisfactory. She kept him home from one lesson after having to follow through on her warning. This was what she said about that incident.

Selected Quotes:

> I was even upset the time we didn't go. Because I enjoyed being out there and being with my son. But, in order to get him to understand, I meant what I say, we couldn't go. But, I mean, I loved it. I loved the one-on-one, I loved the volunteers helping us, you know. Gail, if we didn't understand or we were doing it wrong, they were right there helping, or letting us know. So I mean, it was like, everybody working together. And that's what I liked, was everybody working together. –mother

> I also liked that after he cleaned the horse, you know, the hooves and all, he had to sweep up. That responsibility of cleaning up after himself. Cause that's, trying to do that for years, with all my kids, and they all think that, well, Mom will forget or, you know, if I don't do it right now I can do it later, and later, later never comes. So I liked that that, he had the responsibility there too, because, you know, that shows him that Mom's not the only one that says, you have to do this. You know, he, that, he saw it, you know, with the other people also, having to take responsibility, that, you know, it's not just him. -mother

David was able to internalize behaviors like insight and persistence and use these skills to improve his external behavior at home and with following directions.

Standardized Measure – CFSEI-3

David scored in the normal range for the GSEQ at pre-test and post-test 1 and then slightly above the normal range at post-test 2. The steady improvement over time may reflect the positive experiences and feelings of success that he was having at Equest

and further suggests that exposure to this program over a longer period of time may be necessary. He showed similar improvement over time in all of the subscales as well.

Table 5.14

Case #5 Culture Free Self-Esteem Inventory-3 Scores

Scale	Pre-Test Score	Percentile/ Range	Post-Test-1 Score	Percentile/ Range	Post-Test-2 Score	Percentile/ Range
Global Self Esteem Quotient (GSEQ)*	90	25% Normal	102	55% Normal	113	81% Above
Academic Subscale	8	25%	12	75%	13	84%
General Subscale	8	25%	10	50%	13	84%
Parental/Home Subscale	10	50%	10	50%	11	63%
Social Subscale	8	25%	9	37%	11	63%
Defensive Score**	2		2		2	

Note: Post-test 1 was administered after the completion of the fall session, post-test 2 was administered after the completion of the spring session.
Note: Normal ranges are not available for the subscales.
* Raw scores between 90 and 110 are considered normal.
** Scores above 6 are indicative of non-truthful responses.

Qualitative Data – Self-Esteem

David's mother reported five themes related to self-esteem: Riding skills, interaction with horses, interaction with mother, interaction with siblings and having a successful activity. David's skills in riding and interacting with the horses improved so dramatically over the course of the two sessions that his increased self-confidence was noted by his instructor, the researcher and his volunteers. Both instructors (the fall and spring) noted that David not only had excellent skill development but he was able to

translate his skills from one horse to another and one situation to another. He was learning the concepts rather than just the skills and thereby was learning how to adapt his skills to different types of circumstances. David's mother reported that he had not been successful in many activities at school or sports after-school. Having an activity that he was really good at as well as an activity that she enjoyed was something new for them. She found that his self-confidence and self-esteem translated into a better relationship with her as well as with his sisters. The physical aggression went down and his willingness to be close to her improved.

Selected Quote:

> We are getting along better. He's, well, starting to talk more. You know, instead of just throwing fits, you know, well, I've always told him even before the program, you know, if you don't talk to me, I don't know. Where now he's wanting to open up a little more to me. -mother

Standardized Measure – PSI-SF

David's mother scored in the clinical range at all three measurement points and although her scores did decrease slightly, her parenting stress levels remained very high. David's mother and her husband have adopted four children. Her oldest son has Fetal Alcohol Syndrome and she has two daughters younger than David. The family finances are very tight and she struggles to maintain her health as she has diabetes. David's parents have limited education which prevents them from obtaining higher paying jobs and seems to limit the understanding that they have about parenting a child like David. There are many stressors playing a role in her level of parenting stress and it is unlikely

that her stress levels will drop markedly without more comprehensive intervention for the family as a whole. All of her children were foster-adoptions and it seems that as long as she had an open bed, CPS would place with her without thoroughly understanding the limitations of this family. This family is no longer fostering but with four adopted children, two of whom have difficult needs, the challenges are outweighing the resources.

In an effort to assist with some of the stress in this family, the researcher spoke with LSSS after gaining permission from the mother. David did not have Medicaid insurance or subsidy as part of his adoption and LSSS has agreed to assist with trying to get his Medicaid set-up due to the extensive nature of his behavioral needs at this time. Psychological and psychiatric assessments were done which enabled the paperwork process to start. At the point of completion of this study, the Medicaid issue had not been resolved but LSSS was taking steps to ensure that it would be resolved.

Table 5.15 Case #5 Parenting Stress Index - Short Form Scores

Scale	Pre-Test Score	Percentile/ Range	Post-Test-1 Score	Percentile/ Range	Post-Test-2 Score	Percentile/ Range
Total Stress*	99	95% Clinical	96	94% Clinical	91	90% Clinical
Difficult Child (DC)	41	96%	43	97%	37	91%
Parent-Child Dysfunctional Interaction (P-CDI)	34	98%	29	94%	29	94%
Parental Distress (PD)	24	40%	24	40%	25	50%
Defensive Responding*	14		14		14	

Note: Post-test 1 was administered after the completion of the fall session, post-test 2 was administered after the completion of the spring session.
*15%-80% is considered normal.
** Below 10 is indicative of possible social desirability.

Qualitative Data – Parenting Stress

David's mother reported four themes related to parenting stress in her interviews and surveys: Ongoing volunteer opportunity, sharing resources, not feeling alone an positive time with child. David's mother enrolled his brother at Equest for the regular spring session and volunteered during his class as well as during some other classes. She reported liking being around positive people who are so caring and supportive. David's mother found that time with the other mothers was supportive and useful. She learned about resources that were available and gained support from them in her struggles with David. The researcher observed that she was hesitant to join in with the other mothers but once she was 'invited' she was able to connect with some of them. She also reported how much she enjoyed having such a positive experience with her son. This was unusual for them and she really appreciated the time they spent together at Equest.

Selected Quotes:

> But I like that, I like talking to the other moms. You know, because they had about the same as what I had. You know, as far as problems, you know, with the children, and we could sit down and talk and, you know, come, come to something. Or, if you didn't know or, they told you, you know. And, I liked that, I thought it was an excellent idea to go with the horses. –mother

> I liked it, I mean, everybody was nice. If you had a problem, you could ask anybody and they'd help. –mother

After Program Plan

David's mother enrolled him and his three siblings in other Equest programs. David's older brother, who has Fetal Alcohol Syndrome, began riding in the spring

session and David's two younger sisters were enrolled for the LSSS summer camp at Equest.

Non-program changes that may have affected the case

David began the Therapeutic Horsemanship Program on several medications for Bi-polar and ADHD. During the fall session, David's mother reported that he had tried to kill himself by running into traffic. She reportedly took him to his psychiatrist who felt that this was not a significant attempt and did not feel that an adjustment in his medication was necessary. David's mother was concerned and asked the researcher for help. After discussing the problem with her, the researcher referred her back to LSSS and with the mother's permission, called the Director of LSSS to ensure that contact was made. LSSS indicated that they had been providing services on and off to this family for several years and would be in contact with the family to determine what was needed.

Throughout the fall session, he remained on his medication with no changes. Approximately three weeks into the spring session, David's insurance lapsed and he ran out of his medication. David's mother had misread the insurance forms and all of the children were deemed ineligible due to her reporting error. The researcher worked with David's mother to get her in touch with LSSS to assist with this issue. David had not been qualified for Medicaid at the time of his adoption, as was indicated to be "a healthy infant" despite the biological history of Bi-polar and mental illness. During the last week of the spring program David was back on his medication and LSSS was working with the family to retroactively qualify him for Medicaid to avoid the insurance problems in the future.

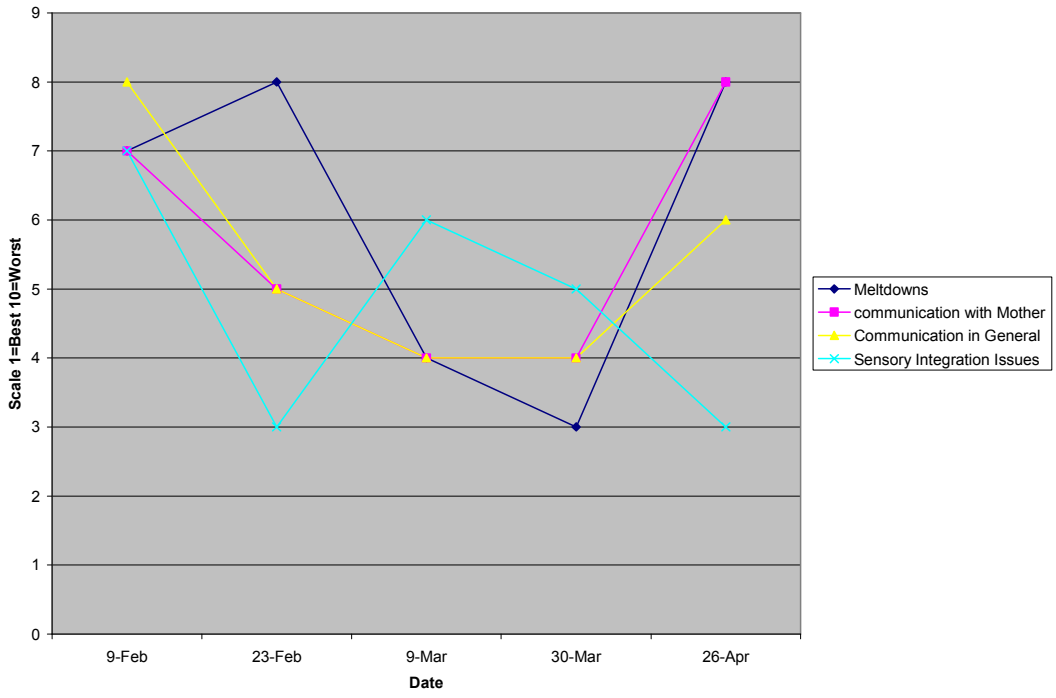
Case #6-Kelly

Kelly and her mother participated in the Therapeutic Horsemanship Program during the spring session. Kelly's mother was initially concerned about whether or not Kelly would be too frightened around the horses and be able to succeed at all but felt it was worth a try.

Mother-Reported Scaled Data

Kelly's mother reported four challenging areas in which she wanted to see improvement. They were: meltdowns, communication with mother, communication in general and sensory integration issues.

Figure 5.4
Case #6 Mother-Reported Scaled Data



Kelly began taking Concerta shortly before beginning the Therapeutic Horsemanship Program which makes it difficult to determine if the Therapeutic Horsemanship Program was a cause of some of her improvements that can be seen in the above chart. Kelly's mother described the experience as being very good for her self-confidence and self-esteem. Part way through the program, Kelly began taking charge of her horse in the barn which included handling a large horse on her own, and doing most of the grooming and tacking of that horse on her own, despite her small stature. Her mother was continually surprised at how confident she became with the horses. She reported that Kelly was often scared of bugs or animals that she didn't know. Near the end of the program, Kelly learned to pick up her horse's back hoof to clean it out: a difficult task that she had been trying to conquer throughout the program. Her mother was speechless watching her daughter accomplish this task. Figure 5.4 shows the improvement in target areas with a spiked decline at the end (upward slope). This may have occurred due to termination issues or challenges with end of the school year requirements.

Standardized Measure – Child behavior Checklist

Kelly scored in the borderline clinical range at pre-test on the total competency scale and in the normal range at post-test. This improvement takes into account her improvement on the Social competency scale, despite starting and remaining in the normal range. Her school competency score moved from borderline clinical range to clinical range. This represented a slight change for Kelly and does correlate with her mother's report that she struggles in school and these struggles seem to become more

challenging with each grade. During the spring session, Kelly's mother made the decision to hold Kelly back for a year in school.

Kelly's Total Problem score came down from the clinical range at pre-test to the normal range at post-test. Her scores on the Internalizing Scale remained static in the borderline clinical range but a drop in the External Problem score is partially what is seen in the Total Problem score drop. Although the External Problem score was already in the normal range at pre-test, the score was on the high end of normal and the drop still indicates improvement. All of Kelly's syndrome scale scores were in the normal range at pre-test and post-test except for thought problems and attention problems subscales which moved from borderline clinical range to normal range and from clinical range to normal range respectively. All of Kelly's improvements here may be accounted for by her medication regime. She began taking Concerta a few weeks before the Therapeutic Horsemanship Program thereby making it difficult to attribute any change to the Therapeutic Horsemanship Program. When Kelly's mother was asked about this she responded that she is unsure about whether the medication or Therapeutic Horsemanship Program impacted her daughter's behavior.

Selected Quote:

> I can't tell how much of her improved behaviors are due to meds or Therapeutic Horsemanship Program. Since Christmas there have been great improvements in concentration, conversation and ability to follow-through. I'm not sure if it's to do with the medication or to do with Equest, it's probably a bit of both. -mother

Table 5.16
Case #6 Child Behavior Checklist Scores

Scale	Pre-test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Competence – Total	20.5	14% Borderline Clinical	21.5	18% Normal
Competence – Activities	12	58% Normal	11.5	46% Normal
Competence – Social	5.5	12% Normal	8	42% Normal
Competence – School	3	4 % Borderline Clinical	2	>3% Clinical
Problem Scale – Total	52	93% Clinical	35	81% Normal
Problem Scale – Internalizing	11	87% Borderline Clinical	11	87% Borderline Clinical
Problem Scale – Externalizing	11	81% Normal	5	54% Normal
Syndrome Scale – Anxious/Depressed	6	84% Normal	7	90 % Normal
Syndrome Scale – Withdrawn/Depressed	3	84% Normal	3	84% Normal
Syndrome Scale – Somatic Complaints	2	76% Normal	1	62% Normal
Syndrome Scale – Social Problems	5	81% Normal	7	92% Normal
Syndrome Scale – Thought Problems	5	95% Borderline Clinical	2	65% Normal
Syndrome Scale – Attention Problems	12	>97% Clinical	7	89% Normal
Syndrome Scale – Rule-Breaking Behavior	1	58% Normal	1	58% Normal
Syndrome Scale – Aggressive Behavior	10	87% Normal	4	58% Normal

Qualitative Data – Behavior

Kelly's mother reported three themes related to behavior in her interviews and surveys: Improvement at school, improvement at home and reduced child stress. Kelly's

improvements in school were related to her social behavior and her work in counseling. She reported that Kelly was more likely to ask a question when she didn't understand something than she previously was. Her mother reported that in school she didn't let the boys tease and bother her like they used to, she would just ignore them. In counseling Kelly and her therapist had been working on Kelly being able to generate positive statements about herself. By the end of the Therapeutic Horsemanship Program Kelly still needed a lot of encouragement but she was able to make positive statements about herself when she could not before.

Selected Quotes:

> And the boys tease her, I mean, they do, they tease her cause that's always what boys do, what they do when they're older and blah-blah, and she has this, lately decided she just said, when she doesn't get it or she's not sure what they're saying, she says, 'Whatever.' And that's her way of, you know, and that's better than pouting about it or what, which was what she used to do or take offense or whatever. So that's, I would say, a direct result [of Equest]. –mother

> She's making progress and, yeah, and it's not as, yes, she, it, already, before she started the Equest program, she said it was really hard. The counselor had to work really hard in the session to get her to come up with a positive comment about herself. But towards the end of the school year, she was able to come up, she was beginning to be able, with, with coaching and with a little bit of help, she was able to come up with a positive comment about herself. So yes, it was, yeah, she made tremendous progress.
> -mother

Kelly's improvements at home were most readily seen in her communication with her mother and her relationship with her siblings. She became more engaged in conversation

and her brothers started to take her more seriously after they came and saw how successful she was at her new activity.

Selected Quotes:

> She's more apt now to ask a question when she doesn't understand something. That's definitely new. I mean, you know, when she, she, her, she has a new phrase, 'I don't get it.' –mother

> I tell you what the boys have done, they don't quite dismiss her quite as easily, now that she's, I think I, they kind of were, out there at the horse show, they were, they were very nice to her, that cute little, very charming to her and they congratulated her and everything. But they were kind of, you know, cause see, [they] didn't verbalize it, but their looks, you know, wow, look what Kelly's doing, you know. Yeah. But they were very good, and afterwards when, at the horse show and that, and they were very good and they congratulated her and they were excited for her, you know. And, because it's not often that she's the center of attention. Which she was and, they handled it very well and they were very into it, and she, I'm sure she noticed that. -mother

Standardized Measure – Culture free Self-Esteem Inventory-3

Kelly scored in the normal range on the GSEQ and did show some increase within the normal range from pre-test to post-test. Kelly's family is very supportive and caring and work very hard to help their children feel good about themselves and succeed in life so it is no surprise that Kelly scored this way on the CFESI-3.

Table 5.17
Case #6 Culture Free Self-Esteem Inventory -3 Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Global Self-Esteem Quotient (GSEQ)*	93	32% Normal	98	45% Normal
Academic Subscale	9	37%	8	25%
General Subscale	13	84%	11	63%
Parental/Home Subscale	9	37%	10	50%
Social Subscale	5	5%	10	50%
Defensive Score**	2		2	

Note: Normal ranges are not available for the subscales.
* Raw scores between 90 and 110 are considered normal.
** Scores above 6 are indicative of non-truthful responses.

Qualitative Data – Self-Esteem

Kelly's mother reported six themes related to self-esteem in her interviews and surveys: Riding skills, Interaction with staff/volunteers, Interaction with the horses, Interaction with peers/siblings, Self-confidence/self-efficacy and having a Successful activity. Kelly's mother was repeatedly amazed at how well her daughter was able to progress in the area of skill development and interactions with the horses. She expressed some concern at the beginning of the program that Kelly would be fearful but Kelly's anxiety quickly passed.

> Selected Quote:
> Kelly was initially scared of her horse but now is much more comfortable and confidant. She is less anxious around the horse. -mother

Kelly learned to handle her very large horse with confidence which translated into her ability to ride in the arena. Her Instructor commented on how well Kelly learned to manage a crowded arena and plan ahead about where her horse should be going. Being successful at horseback riding and developing the self-confidence that she did led to improved interactions with her mother while at Equest and at home. Her interactions also improved with her siblings and with her friends at school. Her mother reported that she now had something to talk about with friends or teachers.

Selected Quotes:

> This is 'special' Mom and Kelly time that we haven't always had on a regular basis. It's fun that she and I have a shared experience to talk about. –mother

> And I see her, you know, I can still see her walking down with that horse. You know, I can do this. And she just kind of told us, 'I can do this.' and she didn't need us, and, and that's wonderful. –mother

Kelly's self-confidence was also reported by her Instructor, her volunteers and the researcher. Near the end of the Therapeutic Horsemanship Program Kelly's mother and the researcher witnessed the perfect example of Kelly's newly found self-confidence and self-efficacy. The following story is from the researcher's notes.

Selected Quote:

> Kelly had been trying to pick out JJ's hooves (cleaning out dirt from the horse's hoof) throughout the session. She was initially too scared to pick the large hooves up and then she got brave enough to clean the front hooves but the hind hooves were too scary for her. On this particular evening instead of giving the hoof pick to someone else, she walked

> towards to back of JJ and leaned down and started trying to pick up his hoof. Her mother offered to help but Kelly didn't respond; she just kept trying. After several minutes, JJ picked up his back hoof for her and she began cleaning it out. After several more minutes she put his hoof down and stood up to face her mother with the biggest grin on her face! She was so tired that she told her mother that her mother could do the other back hoof. –researcher

Standardized Measure – Parenting Stress Index – Short Form

Kelly's mother scored in the normal range at pre-test and post-test but did experience a significant reduction in her GSEQ from the high end of normal to the low end of normal. She scored a 7 on the defensive responding scale and although this is a possible indicator for social desirability it can also be a true reflection of low stress. Kelly's mother was very balanced in her approach to parenting Kelly and appeared genuine about how she responded to the program and the researcher.

Table 5.18
Case #6 Parenting Stress Index - Short Form Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Total Stress*	77	75% Normal	58	19% Normal
Difficult Child (DC)	29	70%	23	35%
Parent-Child Dysfunctional Interaction (P-CDI)	23	70%	17	40%
Parental Distress (PD)	26	55%	18	13%
Defensive Responding**	14		7	

*15%-80% is considered normal.
** Below 10 is indicative of possible social desirability.

Qualitative Data – Parenting Stress

Kelly's mother reported two themes related to parenting stress in her interviews and surveys: Ongoing volunteer opportunity and positive time with her child. Kelly's mother decided to begin volunteering at Equest over the summer after this Therapeutic Horsemanship Program was over. She wanted to keep Kelly involved at Equest and wanted to be able to give back to the program that she felt helped Kelly so much. In addition, she found working around the horses and the people at Equest relaxing and enjoyable. Kelly's mother was very appreciative of the time she was able to spend with Kelly during this program. She felt that their special time together was very important, and that it gave her a reminder about how important it is for her to spend one-on-one time with Kelly; not always with all of the children together.

Selected Quotes:

> It certainly was a catalyst for me to make more time with Kelly, on her own. I mean, I often meant to but it sort of never happened. I don't think it happened as much as I would like to. But because we had this great time together, at Equest, it certainly reminds me more often to have a, and that's not really answering your question. And, and we do tend to do more things now, just the two of us, we'll say, you know, we're going, even if it's just shopping. Just take her and not take the boys. And, and have them do something else. It certainly had that, and that's kind of, that's kind of fun. Yeah, it, it was kind of a teaching experience for me, I guess. You gave us a, a learning experience. Me, anyway, because, you know, you put us in this environment and showed us that it could be done. A, that we could do something together, and, that we'd never done before, and, and then the, the, that I could, that I could step back which is, which is hard for me, because I'm a

> control freak, and let her do it. And, and then it's carried forward because I know I'm more conscious about it now. -mother
>
> I guess, I started to think of her as more grown up because she was doing all this active, always been thinking her, she's my little baby, but then she's, she has so, I mean she has so many troubles with social, stuff, and all that kind of stuff that I'm always there hovering over her, protective of her, and I, I didn't have to do that out there. I mean I started it but then I suddenly, from, I did realize, you know, she started being, initiating all this independence and that was really lovely. And so, yeah, that kind of, that journey was, was really nice. And, so yes, we, and she's, she's more inclined to initiate conversation than she was. It was, she tended to wait and see what I had to say and then she'd kind of, go along. -mother

After Program Plan

Kelly's mother had enrolled her for the summer camp at Equest and was looking into possibly enrolling her for the fall session at Equest. She had spoken with LSSS who was willing to allow her to use her respite money allotment for Equest tuition so she and she and her husband were going to see if they could cover the rest.

Non-program changes that may have affected the case

Kelly had been going through multiple diagnostic assessment sessions the semester prior to the Therapeutic Horsemanship Program in an effort to determine what was going on with her. Four weeks prior to her starting the Therapeutic Horsemanship Program, she was started on Concerta. Her mother wished that they could have started the medication and Therapeutic Horsemanship Programs at different times but did not want to delay beginning a medication that might help Kelly. She feels that medication

did affect her improvement but felt that the Therapeutic Horsemanship Program had a strong impact as well. There were not therapeutic or other activity changes during the program.

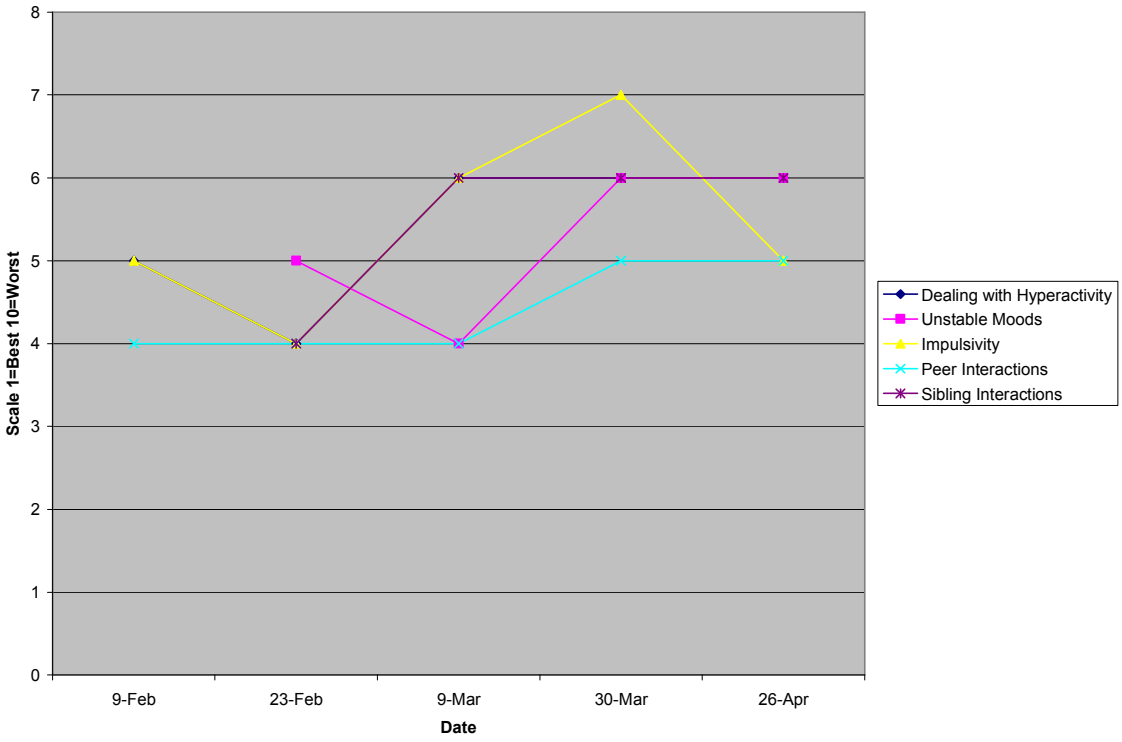
Case #7-Helen

Helen and her mother participated in the Therapeutic Horsemanship Program during the spring session. Helen had ridden at Equest once before during a sensory integration camp so her mother was familiar with the program. She liked that this specific program focused on children adopted from foster care who were having some of the same challenges that Helen was facing.

Mother-Reported Scaled Data

Helen's mother reported five challenging areas in which she wanted to see improvement. They were: hyperactivity, unstable moods, impulsivity, peer interactions and sibling interactions.

Figure 5.5
Case #7 Mother-Reported Scaled Data



The scaled data reported by Helen's mother indicates an increase in problematic behavior on almost all of the areas identified. Helen's mother reported that Helen enjoyed the Therapeutic Horsemanship Program and she liked seeing her learn to ride, but that there was little to no affect on her behaviors.

Standardized Measures – Child Behavior Checklist

Helen's score on the total competency scale moved from the borderline clinical range at pre-test to the normal range at post-test. Her scores on the activities and social competencies remained in the normal range. The improvement in the social activities accounted for the movement from borderline clinical to normal in her total competency score. This is interesting since the Therapeutic Horsemanship Program has a social

component to it and Helen did make a new friend during her participation. Her school competency remained in the clinical range.

Table 5.19
Case #7 Child Behavior Checklist Scores

Scale	Pre-test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Competence – Total	20.5	14% Borderline Clinical	21	21% Normal
Competence – Activities	12	58% Normal	10.5	38% Normal
Competence – Social	6.5	21% Normal	8.5	46% Normal
Competence – School	2	<3% Clinical	2	<3% Clinical
Problem Scale – Total	50	92% Clinical	56	96% Clinical
Problem Scale – Internalizing	2	24% Normal	1	14% Normal
Problem Scale – Externalizing	15	92% Clinical	23	97% Clinical
Syndrome Scale – Anxious/Depressed	0	<=50% Normal	0	<=50% Normal
Syndrome Scale – Withdrawn/Depressed	2	73% Normal	1	54% Normal
Syndrome Scale – Somatic Complaints	0	<=50% Normal	0	<=50% Normal
Syndrome Scale – Social Problems	7	92% Normal	4	87% Normal
Syndrome Scale – Thought Problems	7	>97% Clinical	6	97% Borderline Clinical
Syndrome Scale – Attention Problems	13	>97% Clinical	14	>97% Clinical
Syndrome Scale – Rule-Breaking	5	95% Borderline Clinical	7	93% Borderline Clinical
Syndrome Scale – Aggressive Behavior	10	87% Normal	16	97% Borderline Clinical

Qualitative Data – Behavior

Helen's mother did not report any themes related to behavior in her interviews or surveys. She reported that Helen's behavior remained erratic.

> Selected Quote:
>
> She enjoys herself when she is here. She is receiving 3 hours of positive interaction here at Equest. I don't know that it has changed her behavior but she will have fond memories. -mother

Standardized Measure – Culture Free Self-Esteem Inventory-3

Helen's score on the GSEQ moved from the clinical range at pre-test to the normal range at post-test. In addition, her general and parental/home subscales improved. This may be due to the Therapeutic Horsemanship Program but the relationship is not strong as Helen's mother reports that her behavior frequently cycles.

Table 5.20
Case #7 Culture Free Self-Esteem Inventory-3 Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Global Self-Esteem Quotient (GSEQ)*	80	9% Clinical	90	25% Normal
Academic Subscale	9	37%	8	25%
General Subscale	4	2%	9	37%
Parental/Home Subscale	9	37%	11	63%
Social Subscale	6	9%	6	9%
Defensive Score**	1		3	

Note: Normal ranges are not available for the subscales.
* Raw scores between 90 and 110 are considered normal.
** Scores above 6 are indicative of non-truthful responses.

Qualitative Data – Self-Esteem

Helen's mother reported two themes related to self-esteem: Riding skills and interaction with peers. She reported that Helen was learning how to groom the horse well and was improving her riding skills in the arena. Helen's instructor felt that she had been working very hard to improve with the hope of learning to canter. Helen was not able to try cantering during the program but her instructor felt that if she kept working hard at improving that she might be able to canter during the upcoming summer camp. The researcher noticed a marked improvement in Helen's skills once she had the goal of cantering to work towards. Helen's mother also noted the friendship that she had developed with another student in the program and felt this was positive. She reported that, "It [Equest] is good exercise and a very positive activity."

Despite some positive improvements in Helen, her mother reported that she sometimes didn't want to come to Equest which is a pattern she often follows. She gets very interested in an activity and then quickly looses interest and does not want to complete it.

Selected Quote:

> She is less motivated to attend. The last two nights she has tried to talk me into staying home. She has a long history of wanting to do an activity (to the point of perseverating) and then she loses interest. -mother

Standardized Measure – Parenting Stress Index - Short Form

Helen's mother remained in the clinical range at pre-test and post-test on total stress scores. She reported that Helen is by far the most difficult child to parent of all of

her adopted and biological children. She is also the youngest and last child. Currently several of Helen's siblings are in between moving out and living at home which seems to be causing even greater levels of stress between Helen and her siblings and therefore possibly increased parenting stress for her mother.

Table 5.21
Case #7 Parenting Stress Index - Short Form Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Total Stress*	103	97% Clinical	90	89% Clinical
Difficult Child (DC)	52	99+%	41	96%
Parent-Child Dysfunctional Interaction (P-CDI)	27	90%	25	80%
Parental Distress (PD)	24	40%	24	40%
Defensive Responding**	14		16	

*15%-80% is considered normal.
** Below 10 is indicative of possible social desirability.

Qualitative Data – Parenting Stress

Helen's mother did not report any themes related to stress in her interviews and surveys. The researcher observed that she did utilize the other mothers for resource sharing and seemed to enjoy talking with them about their children and challenges their children are all going through. Helen's challenges at home created some stress related to getting to Equest on time twice a week. Her mother offered the following about this challenge.

Selected Quote:

> Her Father suggested the other night that this program is actually causing more stress in our relationship because of the need to come home after school and get homework done and dinner eaten and out to Equest on time. It has added issues such as need to attend to fulfill a commitment. -mother

Despite the parenting stress related to Helen and all of her challenges, her mother remained optimistic about Helen's future.

Selected Quote:

> I sound very negative and don't mean to; Helen's behavior varies and does get better as she gets older. Her impulsivity, perseveration on a topic/activity, and conflict with peers continue to be issues. I would love for her to take no for an answer, not have meltdowns, and care more about her appearance. On the flip side, she is fearless, resilient and friendly – all qualities that will take her far in life. -mother

After Program Plans

Helen's mother had signed her up for the summer camp at Equest but was unlikely to enroll her for the ongoing program in the fall. She does not get services through LSSS because she can not find Helen's adoption certificate proving her adoption from foster and without that LSSS cannot provide services. LSSS was able to refer her to this project and will allow Helen to ride in the summer camp that they fund at Equest but cannot provide other services. Without some financial support, Helen's parents cannot afford the cost of Equest.

Non-program changes that may have affected the cases

Helen's medication regime did not change during the program, but on some evenings, her mother gave her the evening dose of her medication for hyperactivity before coming to Equest rather than after. It is unclear how many times Helen took her medication before coming to Equest and how many times she took it after going home. There were no therapeutic/psychosocial treatments or other activity changes during the program.

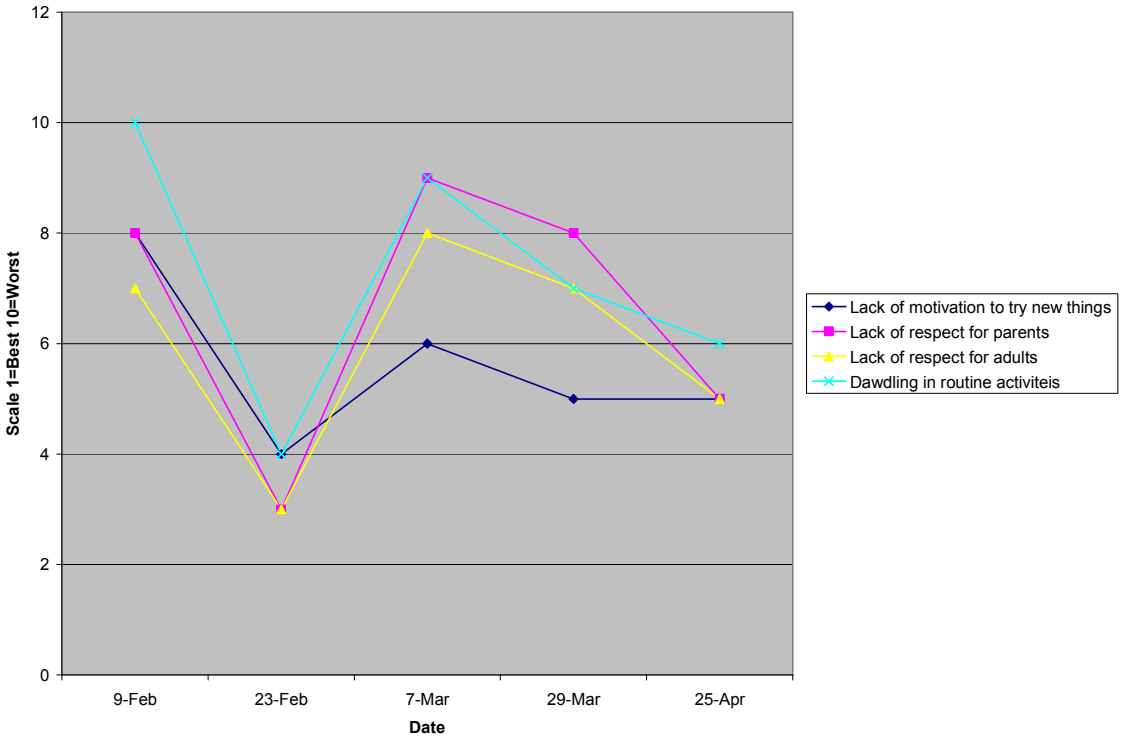
Case #8-Jason

Jason and his mother participated in the Therapeutic Horsemanship Program during the spring session. Jason's mother was looking for new programs that may impact her son's behavior and support his development. She was initially concerned about participating in a program twice weekly but later discovered that Jason was so enthusiastic about it that the time commitment was no problem at all.

Mother-Reported Scaled Data

Jason's mother reported four challenging areas in which she wanted to see a decrease in the behavior. They were: Lack of motivation to try new things, disrespect for parents, disrespect for adults and dawdling in routine activities.

Figure 5.6
Case #8 Mother-Reported Scaled Data



Jason initially showed an improvement in behavior (decline in slope) that later spiked and then leveled off. There might be a slight trend towards improvement in his target areas but it is hard to connect this to the Therapeutic Horsemanship Program. Jason's mother reports that he cycles in his behavior so changes like this would not be unusual.

Selected Quote:

> In general, his behaviors have gone down hill since February. He is having more problems focusing and following the rules at school. I don't think this is because he has been in riding class. Historically, his behavior cycles. We are in the process of re-evaluating his meds.

> Things may have been even worse if we were not coming to Equest. -mother

Standardized Measure – Child Behavior Checklist

Jason scored in the normal range on all competency scales at both pre-test and post-test. This is consistent with his mother's report that he is a bright child and has lots of potential. Jason's total problem scale remained in the borderline clinical range from pre-test to post test. His internal problem scale remained in the normal range and his external problem scale remained in the clinical range at both pre-test and post-test. This is consistent with his mother's report that the Therapeutic Horsemanship Program had a positive impact on Jason but did not change his behaviors.

> Selected Quote:
>
> He loves riding here but many of his behaviors have not improved. I think there are other things impacting his behavior. -mother

Only two of Jason's syndrome scales were out of the normal range. His attention problem scores remained in the clinical range and his aggressive problem scores remained in the borderline clinical range. Both of these scores are consistent with a child who has ADHD and is consistent with his mother's report that other things might be impacting his behavior.

Table 5.22
Case #8 Child Behavior Checklist Scores

Scale	Pre-test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Competence – Total	25	54% Normal	24	46% Normal
Competence – Activities	13	84% Normal	12.5	73% Normal
Competence – Social	8	42% Normal	7.5	34% Normal
Competence – School	4	16% Normal	4	16% Normal
Problem Scale – Total	48	90% Borderline Clinical	47	90% Borderline Clinical
Problem Scale – Internalizing	2	31% Normal	3	42% Normal
Problem Scale – Externalizing	17	93% Clinical	16	92% Clinical
Syndrome Scale – Anxious/Depressed	1	<=50% Normal	1	<=50% Normal
Syndrome Scale – Withdrawn/Depressed	1	65% Normal	2	79% Normal
Syndrome Scale – Somatic Complaints	0	<=50% Normal	0	<=50% Normal
Syndrome Scale – Social Problems	4	79% Normal	4	79% Normal
Syndrome Scale – Thought Problems	3	79% Normal	3	79% Normal
Syndrome Scale – Attention Problems	14	>97% Clinical	13	>97% Clinical
Syndrome Scale – Rule-Breaking	4	84% Normal	4	84% Normal
Syndrome Scale – Aggressive Behavior	13	95% Borderline Clinical	12	93% Borderline Clinical

Qualitative Data – Behavior

Jason's mother reported three themes related to behavior in her interviews and surveys: Following directions, patience and persistence. She reported that Jason learned

these skills because of his enthusiasm for learning to ride. He was able to follow directions and follow-through on multiple step directions in his riding lesson better than he did in any other activity. He showed much more patience than usual in waiting his turn to mount his horse or to trot or to do any other activity with the horse that he had to wait his turn for. She was surprised to see how he could stick with a task and concentrate until it was completed and he was successful.

Selected Quote:

> Yes, yeah, and he, we have sat and watched some of the other groups [at the horse show] first and I thought that was good because he saw how serious the whole thing was and something inside him clicked like, I really need to do my best, because there are other situations where he doesn't hardly try at all, he does it but he doesn't really try and do his best….he just kind of does it, you know. I have never seen him do that. I have never seen him with a total focus and concentrate and put his eye into something and do his best like he did. I have never seen that before and then [he was rewarded for it by winning first place]. I keep trying to bring it out you know, remember when you tried hard and remember the result you got, you know when you do your best it is going to work out. You know you are going to feel good even if you don't win you are still going to feel better because you know you did your best. –mother

She further commented on how the horse was able to keep Jason in line through responding to Jason's behaviors and just being a horse. If Jason wasn't giving the right cues the horse would not respond. Jason learned how to take responsibility for learning and practicing his new skills and not blaming the horse when he wasn't doing something correctly. This was a new concept for Jason that his mother felt he was learning through the help of his horse.

Selected Quote:

> He was cocky...and a little too much and then he got stepped on, which I thought was really good, he didn't get hurt, but before that he had gotten cocky about brushing him real quick and when he got stepped on it reminded him, how could you do that in a hurry and you need to respect him, and he didn't get mad at TV (the horse). Too often when things didn't go right which usually he blames, it's external, when something goes wrong it is never his [fault] it doesn't have anything to do with him, it has to do with everybody else, and he rarely did that, maybe 1 time blaming on him when he couldn't get him to trot. I thought that was good; that showed he understood that he was expected to do it and I think a lot of it was that he respected TV and TV was gentle with him. –mother

Standardized Measure – Culture Free Self-Esteem Inventory-3

Jason's score on the GSEQ moved from the normal range at pre-test to slightly above the normal range at post-test. Very high scores indicates a potential for lying on the scale, but his score was only slightly above the normal range and his Defensive score was 1, indicating that he was being honest while taking the measure. Given Jason's skill development, it is possible that his self-esteem was increased by the Therapeutic Horsemanship Program. Given the propensity for his behavior to cycle, however, caution must be taken when looking at these scores.

Table 5.23
Case #8 Culture Free Self-Esteem Inventory-3 Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Global Self-Esteem Quotient (GSEQ)*	105	63% Normal	113	81% Above Normal
Academic Subscale	9	37%	12	75%
General Subscale	11	63%	11	63%
Parental/Home Subscale	11	63%	13	84%
Social Subscale	12	75%	12	75%
Defensive Score**	1		1	

Note: Normal ranges are not available for the subscales.
* Raw scores between 90 and 110 are considered normal.
** Scores above 6 are indicative of non-truthful responses.

Qualitative Data – Self-Esteem

Jason's mother reported five themes related to self-esteem in her interviews and surveys: Riding skills, Interaction with horses, Interaction with mother, Self-confidence/self-efficacy and having a Successful activity. She reported that his skill development and controlled interactions with the horse were amazing to her. He had to focus and concentrate to learn these skills and progress in his skill development which is usually very difficult for Jason. She noticed improvement in his interactions with her while at Equest but little change when at home. She felt that skill development and improved interactions with the horse gave him an increased sense of self-confidence. She reported how proud he felt of his first place ribbon at the horse show after working so hard to demonstrate all of his new skills. Jason's mother also emphasized the importance

of him being successful at an activity he was working hard at to help stimulate a better work ethic. She felt the horse was able to offer a consistent response to Jason giving him the positive reinforcement he needed as he was learning skills and realizing that he had to work at every task.

Selected Quote:

> There was a connection to him or something. It was really odd. I just didn't expect that. It is like a dog, sort of but they're just bigger and more massive and he [the horse] was good, you could tell that he got to know us, because at first he would see us in the car and at times he would come right over to us and kind of smile at our hands so we knew that he knew us even though he was kind to other people, we knew he knew us too. And I think that is pretty amazing and I think that Jason liked that, too. You know he drew him that picture at the end; he drew a picture of him with the carrots and we had the biggest carrots. He posed with him. They do have a personality and they do respond to it, not in the way a dog does, a dog has a quicker response. But that horse was so responsive. TV would do better on some days, because some days you know that Jason didn't sit up there very good and other days something went right and other days when he sat better TV did that, I mean he was so consistent. -mother

Jason's Instructor frequently noted how he was able to concentrate on learning a new skill and recall skills he needed to improve when his horse wasn't responding well. In addition, the researcher observed Jason having improved interactions with his peers in the Therapeutic Horsemanship Program. While waiting for his turn to mount his horse, Jason would often engage in conversation with his peers and over time was more appropriate about asking questions and listening rather than running off.

Selected Quote:
I think so, you know I think that Jason was just beginning to understand that he does and gets a clear response from the horse that if you don't press your legs right that he doesn't go or doesn't stop at the entrance and Jason is just grasping that; things go differently based on how he acts. It isn't just all happening, you know, he has contributed. -mother

Standardized Measure – Parenting Stress Index – Short Form

Jason's mother scored in the normal range at both pre-test and post-test on the total stress scale. Her score did increase from pre-test to post-test but her Defensive Responding score was below the recommended cut-off of 10 at pre-test, indicating that she may have been trying to put on a good front. This mother was very aware of the challenges that Jason caused people and during the first few meetings with the researcher and the first few lessons at Equest she repeatedly apologized for her son's behavior. Once she realized that no one involved in this program was going to judge her or her son the apologies stopped. Her post-test score may more accurately portray her level of parenting stress. It is well with the normal range.

Table 5.24
Case #8 Parenting Stress Index - Short Form Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Total Stress*	55	15% Normal	79	75% Normal
Difficult Child (DC)	23	35%	29	70%
Parent-Child Dysfunctional Interaction (P-CDI)	16	35%	25	80%
Parental Distress (PD)	16	9%	25	50%
Defensive Responding**	9		15	

*15%-80% is considered normal.
** Below 10 is indicative of possible social desirability.

Qualitative Data – Parenting Stress

Jason's mother reported two themes related to parenting stress during her interviews and surveys: Ongoing volunteer and the positive time she spent with her child. She reported that she was going to start volunteering during the summer at Equest. She enjoyed learning how to care for the horses and felt that is would be a nice program to be involved with. The researcher observed that in addition to enjoying the horses she seemed to actually relax and become calmer around them. The spring session instructor observed this as well.

Selected Quote:

> We have enjoyed learning about horses and Jason is so pleased with himself that he is a rider. He wants to continue with lessons and I hope to continue volunteering. - mother

Jason's mother felt that the positive time they spent together at Equest was very important. Their relationship is often strained at home because of the behavioral challenges and the Therapeutic Horsemanship Program offered them a chance to have a positive experience together.

Selected Quote:

> I noticed just the way they instruct; everything was always positive and that was just so good for him because he hears a lot of negatives and even though his teacher at school is good and we try to be positive, you know he hears negatives because he messes up, you know. Sara was so good; I never heard any of them correct without, she would always say what they were doing right first and in a round about way tell them that they need to change, so I just think she was so good and maybe they are just all like that, those

> near me. I was thrilled. But that is just the best thing about it. It was always positive! -mother

Non-program changes that may have affected the cases

Jason's medication regime changed during the Therapeutic Horsemanship Program; his Adderall dosage was increased three weeks into the program. There were no therapeutic or other activity changes during the program.

Case #9-Jeff

Jeff and his mother participated in the fall session of the Therapeutic Horsemanship Program. Jeff was the third oldest of six adopted children. His mother reported having a much stressed relationship with Jeff which made her very sad. She and Jeff drove over an hour each way to attend the Therapeutic Horsemanship Program.

Mother-Reported Scaled Data

Scaled data was not collected for this case. Jeff's mother reported three areas that she is concerned about with Jeff: Anger management, peer interaction and lying about completing work. At the end of the program, she reported improvement in all three areas.

Selected Quote:

> Since I've been spending more one-on-one time with Jeff doing something he's excited about, he is more talkative with me and is less easily angered. Because Jeff is showing less anger I feel closer to him. -mother

Standardized Measures – Child Behavior Checklist

Jeff only has a post-test score for his total competence due to missing data and consequently a 'no score' on the school competency pre-test. His total competency post-

test score was in the clinical range. His activities competency score dropped from the normal range to the clinical range and his school competency score dropped from the borderline clinical range to the clinical range. This may be in part due to the fact that Jeff's mother did not complete the post-test CBCL so the CBCL that she completed over a month before the program was complete was used for this analysis. Jeff showed most of his improvements in the last few weeks of the program so if the CBCL was going to capture those changes, this measure would have been filled out too early.

Jeff's total problem score moved from the clinical range to the borderline clinical range indicating that perhaps some of the changes in Jeff were being picked up on this scale earlier on. His external problem score dropped from the borderline clinical range to the normal range while his internal problem scale remained in the normal range. This is consistent with his mother's report of improved behavior by the end of the Therapeutic Horsemanship Program. Jeff's syndrome scales were all in the normal range except the social problem scale which remained in the clinical range at pre-test and post-test and the thought and attentions problem scales which both moved from the borderline clinical range at pre-test to the normal range at post-test. The ongoing difficulty with social skills and interaction skills that Jeff's mother reported correlated with the high social problem score.

Table 5.25
Case #9 Child Behavior Checklist Scores

Scale	Pre-test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Competence – Total	No Score	No score	14	<2% Clinical
Competence – Activities	8	10% Normal	6.5	5% Clinical
Competence – Social	4	3% Borderline Clinical	3.5	<3% Clinical
Competence – School	No Score	No score	4	24% Normal
Problem Scale – Total	58	93% Clinical Range	51	90% Borderline Clinical
Problem Scale – Internalizing	6	65% Normal	8	76% Normal
Problem Scale – Externalizing	15	87% Borderline Clinical	10	73% Normal
Syndrome Scale – Anxious/Depressed	3	65% Normal	5	84% Normal
Syndrome Scale – Withdrawn/Depressed	3	76% Normal	3	76% Normal
Syndrome Scale – Somatic Complaints	0	<=50% Normal	0	<=50% Normal
Syndrome Scale – Social Problems	13	>97% Clinical	14	>97% Clinical
Syndrome Scale – Thought Problems	5	95% Borderline Clinical	3	81% Normal
Syndrome Scale – Attention Problems	13	97% Borderline Clinical	9	89% Normal
Syndrome Scale – Rule-Breaking	4	76% Normal	2	58% Normal
Syndrome Scale – Aggressive Behavior	11	90% Normal	8	79% Normal

Note: The mother filled out the post-test CBCL one month prior to completion of the program.

Qualitative Data – Behavior

Jeff's mother reported five themes related to behavior in her interviews and surveys: Insight into behavior through the horses, improvement at home, reduced child

stress, following directions and persistence. Jeff learned about his own behavior through the reactions of his horse, Sonny. One of Jeff's difficulties with social interactions with his peers and with adults is his limited motor control. Jeff frequently made large movements and invaded people's personal space while interacting with them. Jeff's horse, Sonny was very sensitive to this type of movement and would react by moving away from Jeff or throwing his head up in the air or pinning his ears. Over time, Jeff learned to recognize Sonny's cues about his own behavior. He was slowly beginning to transfer this new skill to interaction with people making him more socially appropriate. This progression was noticed by his mother, his instructor, his volunteer and the researcher. His mother reported being amazed how he was finally being able to learn this skill through his motivation to work with the horses.

> Selected Quote:
>
> It is more beneficial to my relationship with Jeff than I anticipated. We have many kinds of animals on our ranch but no horses. It's amazing to me how much Jeff enjoys working with horses. -mother

Jeff's mother noticed how his reduced stress while at Equest made him more able to follow directions and complete tasks. Near the end of the program, she reported seeing some of these changes at home as well.

> Selected Quotes:
> Over the last week (week 6 of program) I noticed less complaining and he did a thorough job on his chores unsupervised today. –mother
>
> He is making much greater efforts at controlling his temper [since being at Equest]. -mother

Standardized Measure – Culture Free Self-Esteem Inventory-3

Jeff's score on the GSEQ moved from the clinical range at pre-test to the normal range at post-test. There were no changes in the family that might account for this increase in self-esteem and Jeff's mother felt this was due to his success and confidence gained while in the Therapeutic Horsemanship Program. She reported feeling so happy that he found something that he was good at and that he really enjoyed.

Table 5.26
Case #9 Culture Free Self-Esteem Inventory-3 Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Global Self-Esteem Quotient (GSEQ)*	85	16% Clinical	97	42% Normal
Academic Subscale	6	9%	9	37%
General Subscale	8	25%	10	50%
Parental/Home Subscale	10	50%	10	50%
Social Subscale	7	16%	9	37%
Defensive Score**	2		2	

Note: Normal ranges are not available for the subscales.
* Raw scores between 90 and 110 are considered normal.
** Scores above 6 are indicative of non-truthful responses.

Qualitative Data – Self-Esteem

Jeff's mother reported five themes related to self-esteem during her interviews and surveys: Riding skills, interaction with the horses, interaction with mother, self-confidence/self-efficacy and having a successful activity. Jeff's mother was very

impressed with his skill development and admitted at the end of the program that she had not expected that. Jeff's Instructor felt he progressed very well and learned to manage his motor skills in such a way that he successfully rode a very sensitive horse.

According to Jeff's mother, the self-confidence that Jeff gained by having an activity that he was successful at and that he loved was the impetus for the improvement in their relationship. She felt that having the horses to talk about and work with together gave her a new appreciation for her son.

In addition to the improved interaction with the horses and Jeff's mother, the researcher noticed an improved ability for Jeff to interact with the staff and volunteers at Equest. His reduced stress and the skills he learned while riding Sonny appeared to give him the tools he needed to become more socially competent in a variety of interactions.

Standardized Measure – Parenting Stress Index–Short Form

Jeff's mother scored in the clinical range at both pre-test and post-test. Her post-test scores were taken more than a month before the completion of the program but it is not believed that the scores would have changed enough to move into the normal range. Jason was till experiencing many challenges and she was parenting five other adopted children, the oldest of whom was in residential treatment. It was unlikely that her parenting stress was going to be reduced without a more thorough family-wide intervention.

Table 5.27
Case #9 Parenting Stress Index - Short Form Scores

Scale	Pre-Test Score	Percentile/ Range	Post-test Score	Percentile/ Range
Total Stress*	110	98% Clinical	96	93% Clinical
Difficult Child (DC)	44	97%	38	94%
Parent-Child Dysfunctional Interaction (P-CDI)	39	99+%	35	99+%
Parental Distress (PD)	27	60%	24	40%
Defensive Responding**	15		13	

Note: The mother filled out the post-test PSI one month prior to completion of the program.
*15%-80% is considered normal.
** Below 10 is indicative of possible social desirability.

Qualitative Data – Parenting Stress

Jeff's mother reported two themes related to parenting stress in her interviews and surveys: Not feeling alone and positive time with her child. She reported enjoying the time spent with the other mothers to hear about their challenges thereby not feeling like she is the only mother who is struggling with her children. Jeff's mother emphasized many times how fortunate she felt to have found this program that allowed her to reconnect with her son through such a positive experience. She felt that the time spent together at Equest showed her a side of her son that had not seen and she was eager to continue to spend time with him around the horses in the future.

After Program Plans

Jeff and his mother did not continue at Equest due to the distance but she informed the researcher that they had purchased a horse for Jeff from a relative and were

going to keep it at their farm. The researcher encouraged her to seek the advice of a trainer and horse professional to continue with Jeff's lessons so that his skills and confidence would continue to improve.

Non-program changes that may have affected the cases

Jeff's Mom did not report any change in medication or therapeutic intervention during the course of the Therapeutic Horsemanship Program. Jeff's older brother was in RTC during the program and there was ongoing legal and treatment issues related to his placement. These issues caused Jeff a great deal of stress and worry throughout the program and caused him to miss a couple of classes while his parents were dealing with these issues.

CHAPTER SIX

DISCUSSION AND IMPLICATIONS

Summary of Findings

The purpose of this study was to explore the potential benefits of a therapeutic horsemanship program for children adopted from the foster care system and their adoptive mothers. The hypotheses of the study stated that the program would have a positive impact on child self-esteem, child externalizing behaviors and parenting stress.

Hypothesis One: Participating in the program is related to child external behavior.

The Child Behavior Checklist (CBCL) was administered to measure the level of behavioral challenges in the children in this sample. None of the scales on the CBCL showed a statistically significant change.

Qualitative data from the mothers, Instructors and researcher observations support some of the statistical findings related to behavior. There is less qualitative data support for improved behavior than self-esteem indicating that the program, in its current state was not as effective in changing behavior as it was in changing self-esteem levels. There does appear to be support for continued research to assess whether or not certain components of the program have an impact on children with specific types of behavioral challenges or whether or not extended exposure to the program is more effective at changing child external behavior. The mothers all reported positive themes related to various aspects of the program despite limited changes in the standardized measures. Further assessment of measurements tools in needed to determine whether or not other

tools might be more appropriate. The fact that so many of the children improved in self-esteem supports and some in academic related areas supports the notion that more research is needed to continue to more fully understand the phenomenon that is occurring and what aspects of children and families are most affected.

Hypothesis Two: Participating in the program is related to the child's level of self-esteem.

The Culture Free Self-Esteem Inventory-3 (CFSEI-3) was administered to measure self-esteem of the nine children in the sample. The Global Self-Esteem Quotient of the CFSEI-3 was statistically significant using a paired samples t-test at the $p<.05$ level. Of the nine children, only three of them scored in the clinical range at pre-test. Of these three, two moved into the normal range and the third improved her score to be very close to the normal range. Of the six children who scored in the normal range at pre-test, all of them were in the lower half of the range and all of them improved their scores to be in the upper half of the normal range.

The subscales provide insight into the GSEQ scores and more thorough understanding of the clinical changes. Those subscales that were statistically significant at the $p=.05$ level were the Parental/Home Self-Esteem subscale ($p=.007$) and the Social Self-Esteem subscale ($p=.035$). The riding program's main components focused on the mother-child interaction and the peer group interaction, making the statistically significant differences in the Parental/Home Self-Esteem and Social Self-Esteem subscales clinically interesting.

Qualitative data from the mothers, Instructors and researcher observations support this finding. It is difficult, however, to reject the null hypothesis due to the limitations of the study. The fact that the findings are supported by multiple sources of data suggests that there is a potential relationship and that future research should be done.

Hypothesis Three: Participating in the program is related to the mother's parenting stress.

There was not a statistically significant change in the parenting stress scores for the mothers. Six of the nine mothers' pre-test and post-test scores were in the clinical range and only three of these had decreased post-test scores. Of the three mothers whose pre-test were in the normal range, one decreased from the 75th percentile to the 19th percentile. The other two mothers in this group increased their Total Stress scores from the 23rd percentile to the 80th percentile and 15th percentile to the 75th percentile.

The Qualitative data obtained through interviews, surveys and observations did not support a direct impact of the program on stress levels but rather an impact on level of support. Many of the mothers reported that they liked spending time with the other mothers to share resources and discuss their children. They reported feeling less alone and comforted by knowing other mothers were experiencing similar challenges with their children.

Although the decrease in parenting stress is important, the lack of movement from the clinical range is of concern. It suggests that perhaps a longer more sustained model with more formal support structure be considered to have a more clinically significant impact on parenting stress for mothers who have adopted children with special needs.

The high levels of stress among these mothers is concerning. Stress among adoptive parents is generally higher than other parent (McGlone, Santos, Kazama, Fong, & Mueller, 2002) but these scores are significantly higher than would be expected.

This sample had high numbers of adopted children with multiple special needs putting high demands on the mothers in terms of their parenting skills. Some of the mothers had adopted children beyond that needed help beyond the available resources of the family and several of the mothers expressed great difficulty in finding services appropriate for their family needs. The difficulty in finding services seemed to be a combination of lack of service availability as well as lack of family ability to access and engage in services. Due to the high level of stress in this sample, some of the mothers appeared to have difficulty engaging in and taking advantage of what Equest offered as part of the program. Other family stressors may have impacted this as well as the program itself. Equest is located thirty to forty-five minutes away from most of the families in this sample and making that drive twice weekly added additional stress for the families with multiple children and other family demands. All of the families felt the highly supportive environment at Equest and the benefits for their children made the twice weekly commitment worth it, but it was difficult for many of them.

The initial study design reflected an assumption that the focus child was a primary source of parenting stress for the mothers in the study. Analysis showed that the families were experiencing stress in so many other areas of their lives that improvement in the child may not actually affect the level of parenting stress. Issues such as multiple children, multiple needs within the children, travel distance, program frequency and

finances are all significant stressors that may have prevented a decrease in stress from occurring regardless of the child's behavior. In addition, if improvement in the mother-child relationship actually occurred that would not have been captured by the measure that was used. Initial attempts were made to identify a standardized measure to reflect changes in the mother-child relationship without success. Further work should be done to identify a measurement tool that would capture change in this relationship.

Extraneous variables

There are many extraneous variables that were unable to be controlled for that may have impacted change or lack of change. Issues related to school were not directly asked or observed. If mothers reported improvements related to school, they were asked if they felt the improvements were a result of the program or if there changes at the school that affected the improvements. In these cases, the mothers did not identify changes at school that affected the improvements but unidentified changes can not be ruled out. In addition, changes in family dynamics, parenting, social support and other changes in the lives of these children can not be ruled out. The mothers were asked about these things but often times said no to later reveal that some of these areas may have changed.

Alternative explanation for change

Although there were not significant changes in many of the children, the changes that did occur may be attributed to aspects of the program other than components of participating in the program. At least two of the mothers used the program as a behavior modification tool. If their child did not behave properly at home they did not come to the

program for a day. In one case the mother reported this to be very effective with her son. Due to an insurance problem, this child (case #5) was off of his medication for a period of time and the mother felt that his behavior was tolerable because she restricted his participation when his behavior escalated. His motivation to ride was strong enough to manage his behavior. The interaction between the relationship with the horses and motivation to behave in order to get to ride should be considered in future research to determine which concepts more strongly impacts outcomes or if the interaction between the two concepts is more effective for some children.

Horse Impact on Outcome

The pairing of horse and child was important for many of the children. As with any sport that involves an animal, the pairing of person and animal and the relationship that develops is important to the success of the pair. In therapeutic horsemanship, this is also true. The pairing of horse and child in this program was made by the child with the approval of the riding instructor. During horse change week the riding instructor made the horse choice and introduced their bias for what horse pairing would facilitate the learning goals for each child. Some of the children experienced change based in part on the horse that they were paired with.

One child, initially enrolled in the fall group, had difficulty with her horse pairing. She had great difficulty attending to her horse or the instructor and the mother exhibited the same difficulty in attending to a task. This difficulty impeded the child's success in terms of skill development and the horse she chose struggled with both the mother and child despite the instructor's report that this horse is typically patient and tolerant of

people with limited horse skills. It is possible that horse was having difficulty due to their inability to be emotionally present with the horse and attending appropriately to the horse's needs. This family dropped out after a few weeks due to the mother's job change. It is possible that if the horse pairing had been more successful that the mother might have found a way for her child to continue with the program rather than just dropping out. This issue may be able to be addressed more adequately in the different proposed versions of this program that are discussed later in this chapter.

Limitations of the Research

The purpose of this study was not to generalize about the impact of a therapeutic horsemanship program for adoptive families but rather to explore potential relationships and investigate possible benefits for families who are struggling to raise children they have adopted from the foster care system. The findings are intended to shed light on potential benefits for families and the findings should be understood in the context of several significant limitations.

Sample size

The small sample size makes statistical analysis difficult and the results of the paired t-tests should be taken cautiously. The problems faced by the children and mothers in this sample are wide ranged and this may impact their perceptions of the program and their ability to benefit from it. This sample was referred by caseworkers at Lutheran Social Services of the South in Mesquite, TX who may have introduced their own bias into which families they contacted to offer the program. In addition, families self-selected to follow-up on the referral. They had to be interested in a horse program

and willing to drive to Wylie, TX twice a week for a semester. Several families with many children and limited child care were unable to participate because of the commitment.

Researcher bias

The researcher was formerly an Instructor at Equest and although data was analyzed in a way to reduce bias, the likelihood that bias exists is present. In order to limit the impact of researcher bias, three mother interviews were randomly chosen to be double coded. The researcher coded all of the interviews and the research assistant coded the three randomly chosen interviews.

Fidelity

Instructors at Equest were trained on the treatment protocol in advance of the program. Due to the nature of horseback riding and the different rates that different students' progress, the Instructors had to adapt the protocol. The Instructors retained the ability to make changes in how quickly their group moved along in terms of skill profession based on their expertise as Therapeutic Riding Instructors. They maintained the same structure, but the actual lesson plans varied between sessions. The two Instructors who taught the two sessions were both women with over twenty years of teaching experience. They were both Master level instructors and had both parented children. Despite these similarities, the Instructors had different teaching styles which may have impacted the children in their groups.

Follow-up

The lack of follow- in this study is a major limitation in understand the impact of the Riding Program on the children and mothers. Follow-up for families who continue in a riding program and families who do not would yield a better understanding of the effect of this type of program. Aaron Katcher and others researching the therapeutic benefits of incorporating animals into treatment raise concerns of carry-over effects with this type of treatment. No follow-up was done for this sample and needs to be assessed in future research. The lack of significant change may be due in part to the short term nature of this particular program. It also may be impacted by the need for animal-assisted program to continue on long-term and be incorporated into the lifestyle of the individual rather than as a program to "fix' the program and then be concluded. The biophilia hypothesis suggests that humans need to be reconnected to nature and the environment to be healthy which may explain why this type of program may have to be more of a lifestyle change rather than an intervention that lasts for a specific period of time.

Conceptual model

The conceptual model implied that this program would positively impact child externalized behavior, child self-esteem and parenting stress. The model suggested that an improvement in self-esteem would impact behavior and parenting stress and the improvement in each concept would impact the other concepts. The data does not fully support or reject this model. The correlations that were run suggest a relationship between child external behavior and parenting stress but no relationship with self-esteem. The fact that self-esteem was the only area to show statistical improvement suggests that

this program may not be able to impact child behavior and parenting stress. The program, as designed, may be best suited for children with low self-esteem but generally acceptable external behavior who are being parenting by mothers who have manageable stressors and sufficient personal and family resources to manage their stressors. Programs for children with more significant challenges are discussed later in this chapter.

Implications for Practice – Mothers' Perspectives

The mothers and children participating in this program all had some suggestions for improving the program. The children reported the following: it should never end, their mothers should ride and they should get to go faster. While their suggestions may not be feasible, they do support the children's interest in the program. The mothers made suggestions related to frequency, support and home-work activity. Several mothers had difficulty with the program being twice weekly given the distance of Equest from their homes and other child care and employment considerations. The mothers were split on whether or not the program should go all year with one session per week or one semester with two sessions per week as it was. They all recognized the benefits of two sessions per week but were conflicted over the difficulty in logistics.

The mothers were also split on the support group aspect of the program. As it was, mothers had some social time once a week while watching their children ride to get to know each other and become an informal support network for each other. Mothers whose children were more difficult and who were struggling with challenges beyond their coping skills suggested a more formal support group facilitated by a therapist. Mothers whose children's challenges were within their abilities to cope and had sufficient

resources felt the level of support was adequate and preferred to spend time working with their child and the horse. The mothers were also split on whether or not the homework activity was useful. The mothers who were in the high engagement category liked the homework activities and had some suggestions to make them even more fun. The mothers in the moderate and low engagement groups were less likely to complete the homework activity with their child and felt it was more of a challenge to get it done than a benefit. Concepts from Social Learning Theory should be more fully integrated into the homework assignments. These assignments should be connected to academic learning goals to more fully support the children in the program.

The travel time and frequency commitment that mothers made to this program likely added to some of the stress they were experiencing. The program may need to be stretched out over a year with a once weekly session. The child's skill development would be slower in this model but stress considerations for the mothers and family may need to override this. The high level of stress in adoptive families shown in the literature requires that this be more fully tended to in the next program. Several mothers said that they would have committed to this model while others said that before knowing how successful the program would be there might not have been willing to commit to a full year program.

Implications for Practice –Program Development

Based on the mothers' recommendations and researcher observation, future program development should consider three different types of programs. The current program appears to be most beneficial for children with self-esteem and social skills

problems and seems to be most appropriate for mothers who have a solid support network in place and feel that they are managing their child's needs fairly well. The program might be considered as an adjunct to other types of therapies for children who are struggling with self-confidence and skill development. Recruitment for this model would need to be more selective and families with higher needs would be screened out.

For children experiences significant behavioral problems and mothers who are really struggling to manage their child or where there is the concern of an adoption disruption, a more structured program might be developed. The basic model might be adapted to bring a therapist in to work with the mothers in a facilitated psycho-educational support group that focuses on the particular issues being experienced by the group. It might be built on the solution-focused brief therapy model because most therapeutic riding programs are strengths-based and in-line with the philosophy of this model. The therapist might then be able to assist the Instructor in developing lesson plans that focus on skills development as well as the treatment goals established by the therapist. This model would have implications for group recruitment as families participating should be more similar on critical variables relating to the presenting problems for the family. The therapist would either need to be familiar with therapeutic horsemanship and the Instructor must be willing to work with the therapist in designing lesson plans.

The third model would build on the second and be appropriate for adoptive families who are parenting several special needs children and where the problems are more pervasive throughout the family. In this program, the riding instructor and therapist

would work together in the arena in a 'tag-team' approach. This provides the therapist with the opportunity to guide the therapeutic work while the riding lesson is going on. This could be done in a group setting much like the program in this study or as a family with the children and parents working in the arena with the horses together. This model would be the highest cost of the three and might be utilized for families who have not been responding to other family treatment models. It might be built on a Solution-focused model as well.

All three programs need to undergo more rigorous evaluation to determine if they are effective. Further, the models could be translated into programs that can be utilized for other types of families in the child welfare system.

Implications for Social Work

The implications for social work practice relate to the need for creative thinking and unique programs to meet the diverse challenges faced by families with children adopted from foster as well as families raising children currently in foster care. Social Workers involved in child welfare are frequently faced with children who are exhibiting behaviors that threaten placement stability and disrupt lives. There are currently over eight hundred accredited therapeutic riding centers in the United States, many of who would be willing to accept children with emotional and behavioral challenges into their programs with proper support. Social Workers must be open to exploring unique options for treatment for the children in their care. The caseworkers at LSSS had been involved with Equest previously and were very supportive of referring families for this program after learning that it was designed for the children they serve.

Implications for Future Research

The data collected in this study does not provide sufficient evidence to make any causal statements about therapeutic horsemanship programs and children adopted from foster care. It does, however, suggest issues that need to be addressed during recruitment and program enrollment. It further indicates the need for future research on the current program as well as the recommended variations of the program. The three types of programs suggested should be developed and evaluated with a more rigorous model.

Conclusion

The findings from this study have implications for meeting the needs of a variety of children adopted from foster and their adoptive parents. The area with the strongest support from the data is the improvement in self-esteem and self-confidence. This area is critical to children adopted from foster care, particularly children adopted at an older age or with significant histories of abuse. Researchers, social workers and riding instructors should continue to work together to explore the relationships identified in this project and continue to learn about the potential benefits that can be gained from pairing children and horses together.

Appendix A – IRB Approval

OFFICE OF RESEARCH SUPPORT & COMPLIANCE
THE UNIVERSITY OF TEXAS AT AUSTIN
P. O. Box 7426, Austin, Texas 78713 (512) 471-8871 - FAX (512 471-8873)
North Office Building A, Suite 5.200 (Mail code A3200)

FWA #00002030

Date **09/01/05**

PI(s) **Patricia A Cody** Department and Mail Code **SOCIAL WORK RES, CTR** **D3510**

Dear: **Patricia A Cody**

IRB APPROVAL – IRB Protocol # **2005-08-0006**

Title:**Therapeutic Horseback Riding and Adopted Children with emotional/behavioral problems**

In accordance with Federal Regulations for review of research protocols, the Institutional Review Board has reviewed the changes requested of you and approves your study for the following period:

Your study has been approved from 09/01/2005 – 08/21/2006

__XX__**Please use the attached approved informed consent forms**

You have been granted:

_____**Waiver of Documentation of Consent**
According to 45 CFR 46.117, an IRB may waive the requirement for the investigator to obtain a signed consent form for some or all subjects if it finds either:

_____The research presents no more than minimal risk **AND**

_____The research involves procedures that do not require written consent when performed outside of a research setting
45 CFR 46.117(c)(2)

or

_____ The principal risks are those associated with a breach of confidentiality concerning the subject's participation in the research
AND

_____The consent document is the only record linking the subject with the research
45 CFR 46.117(c)(1)

You have been granted:

_____**Waiver of Informed Consent**
According to 45 CFR 46.116(d), an IRB may waive or alter some or all of the requirements for informed consent if:

_____The research presents no more than minimal risk to subjects;
_____The waiver will not adversely affect the rights and welfare of subjects;
_____The research could not practicably be carried out without the waiver; and
_____Whenever appropriate, the subjects will be provided with additional pertinent information after they have participated in the study.

IRB Protocol # **2005-08-0006** **09/26/2005** Approval Dates: **09/01/2005** - **08/21/2006**

RESPONSIBILITIES OF PRINCIPAL INVESTIGATOR FOR ONGOING PROTOCOLS:

(1) Report **immediately** to the IRB any severe adverse reaction or serious problem, whether anticipated or unanticipated.
(2) Report any significant findings that become known in the course of the research that might affect the willingness of subjects to continue to take part.
(3) Insure that only persons formally approved by the IRB enroll subjects.
(4) Use **only** a currently approved consent form (remember approval periods are for 12 months or less).
(5) **Protect the privacy and confidentiality of all persons and personally identifiable data, and train your staff and collaborators on policies and procedures for ensuring the privacy and confidentiality of participants and information.**
(6) Submit for review and approval by the IRB all modifications to the protocol or consent form(s) prior to the implementation of the change.
(7) Submit a **Continuing Review Report** for continuing review by the IRB. Federal regulations require **IRB review of on-going projects no less than once a year** (a Continuing Review Report form and reminder letter will be sent to you 2 months before your expiration date). Please note however, that if you do not receive a reminder from this office about your upcoming continuing review, it is the primary responsibility of the PI not to exceed the expiration date in collection of any information. Finally, it is the responsibility of the PI to submit the Continuing Review Report before the expiration period.
(8) Notify the IRB when the study has been completed and complete the Final Report Form.
(9) Please help us help you by including the above protocol number on all future correspondence relating to this protocol.

Thank you for your help in this matter.

Sincerely,

Clarke Burnham, Ph.D., Chair
Institutional Review Board

cc: DRC

Appendix B – Consent Form

APPROVED BY IRB ON: 09/01/2005 (FOR ORSC USE ONLY) EXPIRES ON: 08/21/2006

IRB# 2005-08-0006

Informed Consent to Participate in Research
The University of Texas at Austin

You are being asked to participate in a research study. This form provides you with information about the study. The Principal Investigator Patricia A. Cody will provide you with a copy of this form to keep for your reference, and will also describe this study to you and answer all of your questions. Please read the information below and ask questions about anything you don't understand before deciding whether or not to take part. Your participation is entirely voluntary and you can refuse to participate without penalty or loss of benefits to which you are otherwise entitled.

Title of Research Study:

Therapeutic Horseback Riding and Adopted Children with emotional/behavioral problems

Principal Investigator(s) (include faculty sponsor), UT affiliation, and Telephone Number(s):

Patricia A. Cody, MSW, LGSW (Doctoral Candidate)
The University of Texas at Austin, School of Social Work
512-413-6405
triciacody@mail.utexas.edu

Cynthia G. Franklin, Ph.D. (Faculty Advisor)
The University of Texas at Austin, School of Social Work
512-471-0533
cfranklin@mail.utexas.edu

Funding source:

Currently this research project is not funded. Application for funding is being made with the American Quarter Horse Foundation.

What is the purpose of this study?

The purpose of this study is to evaluate the effectiveness of a therapeutic horseback riding program on adopted children with emotional and behavioral disorders and their mothers. In particular, the study will assess whether or not participation in the program reduces negative child behaviors and parental stress and improves the child's relationship to the mother.

Equest Therapeutic Horsemanship in Wylie, TX will be hosting the program. The Program Director will be teaching the riding sessions at the riding center in Wylie. Equest has been teaching riding lessons to adults with physical, cognitive, and emotional challenges since 1981. They are premier accredited therapeutic riding center. The Equest website can be accessed at www.equest.org. Two groups of six adopted children and their mothers will participate in the program.

What will be done if you take part in this research study?

If you and your child choose to participate in this research project there will be five parts of the project you will be asked to participate in from September 2005 – May 2006.

Initially you will be asked to fill out a family information sheet, release the Child Behavior Checklist score filled out at Lutheran Social Service to the researcher, and attend a volunteer training. During this training the mothers of the children participating will be actively involved and therefore required to attend a volunteer training at Equest. The training provides information and practice in the safe handling of horses and the rules and regulations at Equest intended to provide a safe and enjoyable experience for all riders at Equest. The training lasts approximately 5 hours.

The next part is the riding program. You and your child will participate in the riding program on Tuesday and Thursday evenings from 6:30 – 8:00 pm. The program will last for 11 weeks for a total of 22 riding sessions. You and your child will be randomly assigned to either the fall semester group (fall, 2005) or the spring semester group (spring, 2006).

The third part of the project is the regular measures that you and your child will be asked to complete. These measures include the following items.

- The Child Behavior Checklist (approximately 15 minutes, Mother)
  This measure will assess any changes in your child's negative behaviors. The mother can fill it out.
- Parental Stress Inventory (approximately 5 minutes, Mother)
  This measure will assess any changes in the Mother's level of stress regarding parenting her Child. The Mother can fill it out.
- Inventory on Parental and Peer Attachment (approximately 30 minutes, Child)
  This will assess any changes in your Child's attachment to parent (s) and peers and will be filled out by your Child. The researcher will read the items on this measure if the child needs assistance in reading comprehension.
- Culture Free Self-Esteem Inventory (approximately 15 minutes, Child)
  This will assess any changes in your child's self-esteem and will be filled out by your Child. The researcher will read the items on this measure if the child needs assistance in reading comprehension
- Event Logs (approximately 5 minutes each for Mother and Child)
  These are short open ended questions to assess the Mother's and Child's experiences since the last set of measures.

These measures will be done every six weeks throughout the program. If you and your child participate in the riding program in the fall semester then you will do the measures one (1) time before staring the program, three (3) times during the program, and three (3) times after the program. If you and your child participate in the riding program in the spring you will do the measures three (3) times before the program, three (3) times during the program, and one (1) time after the program. All of these measures will be done at the riding center or at a location that is convenient for your family. If you choose to do the measures at the riding center, you and your child will be asked to come to the riding center 45

minutes prior to the lesson time. If you choose to do the measures at another location, you and the researcher will make those arrangements.

The fourth part of the program involves interviews. Mothers will be interviewed three times; before the program, after the program, and at follow-up. These interviews before and after the program will last approximately 30-45 minutes. The follow-up interview will last approximately 15-30 minutes. In addition, your Child will be interviewed at the end of the riding program. This interview will last approximately 20-30 minutes. Interviews with the Mothers will be conducted over the telephone at the Mother's convenience. Interviews with the children will be conducted in person at the family's convenience. All interviews will be audio-taped so that the interview can be transcribed and coded for data analysis. Tapes will be destroyed at the end of the research project and transcripts will be done with fictional names.

The final part of the project is that all riding sessions will be video taped by the researcher. This is being done so that the researcher can compare the fall semester program with the spring semester program to ensure that the programs were taught in the same way. These tapes will only be viewed by the researcher and her dissertation committee. These tapes will be destroyed at the end of the research project.

What are the possible discomforts and risks?

Due to the nature of riding horses, there is the possibility of falling off and risking physical injury. This risk is minimized by the safety protocols in place at Equest. The horses at Equest are very well maintained and are screened and trained to work with children with a variety of disabilities and disorders. Equest has been safely operating in the greater Dallas area since 1981. The instructors at Equest are all certified through the North American Riding for the Handicapped Association – a process requiring a high level of knowledge regarding the safety of children and horses. Equest has safety protocols in place for dealing with any injury from using icepacks if a person is stepped on by a horse or receives an insect bite to requesting paramedics in the event of a more serious injury. Equest has operated since 1981 with only injury requiring serious medical attention and that was for a broken arm. The researcher will not be financially responsible for any physical injury. Safety protocols are available for review by request of the researcher or Lili Kellogg, Equest Program Manager.

The instructors at Equest are all certified through the North American Riding for the Handicapped Association – a process requiring a high level of knowledge regarding the safety of children and horses. The program will be taught by Lili Kellogg, the Program Director of Equest. Equest is a Premier Accredited Riding Center by the North American Riding for the Handicapped Association. The NARHA website describes this accreditation as follows: "The Premier Accredited Center (PAC) Program, give centers the chance to demonstrate their excellence in providing quality equine assisted activities. This voluntary process recognizes NARHA centers that have met established industry standards. The accreditation process is a peer review system in which trained volunteers visit and review centers in accordance with NARHA standards. A center that meets the accreditation requirements based on the administrative, facility, program and applicable special interest standards becomes a Premier Accredited Center (PAC) for a period of five years".

Due to the background that the children in this research project may have experienced it is possible that during the course of the program pervious trauma may resurface. There are three procedures in place to deal with this. First, the adoptive mothers will always be present to comfort and reassure their child or remove theim from the riding center if necessary. Second, the researcher will always be present to assist with an emergency or assist with de-escalating a traumatized or distressed child. Third, Lutheran Social Services will be available to assist with counseling or necessary referrals for the family. Lutheran Social Services has background information on the family and will be most suitable for assuring appropriate psychological treatment is received. Lutheran Social Services will immediately be notified if the researcher learns that a child or parent has voiced feelings of wanting to harm themselves or others.
The researcher will not be financially responsible for psychological treatment that is sought.

What are the possible benefits to you or to others?

The potential benefits for the participants in the research project are very high. The most obvious is that participants will not have to pay for to participate in a popular horseback riding program, a value of $1200. If this program is shown to be effective in reducing negative child behaviors and parental stress and improve parent-child relationships, the family may experience changes that they have been looking for. With positive outcomes the program has the potential to be an ongoing collaborative effort between Equest and LSS which will allow these families to continue with the program and make it available to other adoptive families. Post-adoption services that meet multiple needs of adoptive families are rare and if this program is shown to be positive for these families they will potentially have a long-term program to be involved with.

If you choose to take part in this study, will it cost you anything?

If you choose to participate in this project there will be no cost for you. Your child will be able to wear regular jeans and any shoes that have a sturdy heel on them. Special riding clothes will not be required.

Will you receive compensation for your participation in this study?

If you choose to participate in this research project you will be receiving 22 riding sessions at a premier therapeutic riding center for you and your child free of cost.

What if you are injured because of the study?

The risk for physical injury is minimized by all of the safety protocols that Equest has in place. If, however, you or your child is injured while participating, no treatment will be provided for research related injury and no payment can be provided in the event of a medical problem. Equest maintains full insurance coverage. A copy of this policy may be reviewed upon request of the researcher.

If you do not want to take part in this study, what other options are available to you?

Your participation in this study is entirely voluntary. You are free to refuse to be in the study, and your refusal will not influence current or future relationships with The University of Texas at Austin, Lutheran Social Services, or Equest Therapeutic Horsemanship.

APPROVED BY IRB ON: 09/01/2005 (FOR ORSC USE ONLY) EXPIRES ON: 08/21/2006

How can you withdraw from this research study and who should you call if you have questions?

If you wish to stop your participation in this research study for any reason, you should contact: Patricia A. Cody at (512)413-6405 or triciacody@mail.utexas.edu. You are free to withdraw your consent and stop participation in this research study at any time without penalty or loss of benefits for which you may be entitled. If you choose to withdraw from the research project, the free riding lessons will discontinue. Throughout the study, the researchers will notify you of new information that may become available and that might affect your decision to remain in the study.

In addition, if you have questions about your rights as a research participant, or if you have complaints, concerns, or questions about the research, please contact Clarke A. Burnham, Ph.D., Chair, The University of Texas at Austin Institutional Review Board for the Protection of Human Subjects, (512) 232-4383. You may also contact the Office of Research Compliance and Support at (512) 471-8871.

How will your privacy and the confidentiality of your research records be protected?
Participant's privacy will be respected and maintained in several ways. The riding sessions will be conducted on Tuesday and Thursday evenings, the quietest times/days at Equest. Riding sessions will be conducted in one of the two riding arenas with no other riders present. Staff at Lutheran Social Services as well as staff at Equest will be aware that the families are participating in a research project. Equest and LSS staff will be trained on the importance of privacy and confidentiality of the families involved in the study as well as the research protocols.

In terms of the research, families will be assigned a participant number that will identify all of their data. Interviews will be transcribed with fictional names. All tapes (audio and video) will be destroyed after data analysis is completed at the end of the research project. All audio and video tapes will be done by the researcher and will be transported by the researcher to and from the riding center. All tapes (audio and video) will be labeled with the participant number and date as well as the researcher contact info in the unlikely event that the tapes are misplaced. Audio and video tapes will only be used for research purposes and will only be viewed by the researcher and her dissertation committee. All data will be in a locked file cabinet and stored on a secure computer protected with passwords.

If in the unlikely event it becomes necessary for the Institutional Review Board to review your research records, then the University of Texas at Austin will protect the confidentiality of those records to the extent permitted by law. Your research records will not be released without your consent unless required by law or a court order. The data resulting from your participation may be made available to other researchers in the future for research purposes not detailed within this consent form. In these cases, the data will contain no identifying information that could associate you with it, or with your participation in any study.

If the results of this research are published or presented at scientific meetings, your identity will not be disclosed.

APPROVED BY IRB ON: 09/01/2005 (FOR ORSC USE ONLY) EXPIRES ON: 08/21/2006

Will the researchers benefit from your participation in this study?

The researcher will benefit from this project in that it is her dissertation and must be completed prior to completion of her doctoral degree in Social Work at The University of Texas at Austin.

Signatures:

As a representative of this study, I have explained the purpose, the procedures, the benefits, and the risks that are involved in this research study:

_____

Signature and printed name of person obtaining consent **Date**

You have been informed about this study's purpose, procedures, possible benefits and risks, and you have received a copy of this form. You have been given the opportunity to ask questions before you sign, and you have been told that you can ask other questions at any time. You voluntarily agree to participate in this study. By signing this form, you are not waiving any of your legal rights.

_____

Printed Name of Subject **Date**

_____

Signature of Subject **Date**

_____

Signature of Principal Investigator **Date**

Appendix C – Child Assent Form

ASSENT FORM

Therapeutic Horseback Riding and
Adopted Children with emotional/behavioral problems

I agree to be in a study about horseback riding and girls who have been adopted. This study was explained to my mother and she said that I could be in it. The only people who will know about what I say and do in the study will be the people in charge of the study, the riding instructors who will be teaching the riding lessons, and the people at Lutheran Social Services.

In this study I will learn how to ride horses. I will be asked questions about how I feel about the riding program, how I feel about myself, and how I feel about my family. I know that I will be asked these questions several times throughout next school year. I know that when I am asked questions the person in charge will audio tape it and I know that she will video tape the riding lessons.

Writing my name on this page means that the page was read to me and that I agree to be in the study. I know what will happen to me. If I decide to quit the study, all I have to do is tell the person in charge.

_____ _____

Child's Signature Date

_____ _____

Appendix D – Family Information Sheet

Family Information Sheet

Date Completed:_____

Contact Information

Adoptive Parent #1:_____
(parent who will participate)

Adoptive Parent #2:_____
(if applicable)

Address:

Street_____ Apt#_____
City_____ State_____ Zip_____

Telephone:

Home # _____ Best time to call: _____

Work # _____ Best time to call: _____

Email Address _____

Parent to Participate in Project:

Current Marital/Relational Status (please check ONLY one):

- ☐ Single, never married
- ☐ Single, living with partner in committed relationship (How long?_____)
- ☐ Married (How long?_____ _____)
- ☐ Divorced (How long?_____)
- ☐ Separated (How long?_____)
- ☐ Widowed (How long?_____)

Employment Status (check all that apply):

_____ Self-employed full-time
_____ Self-employed part-time
_____ Employed full-time
_____ Employed part-time
_____ Student
_____ Other (please specify) _____

_____ Work outside the home
_____ Work from home
_____ Not employed-stay at home parent
_____ Not employed – looking for work
_____ Not employed - Disability

Job Title: _____

Are you adopted? ___ Yes ___ No If yes, age at adoption___

Was your spouse/partner adopted? ___ Yes ___ No If yes, age at adoption___

Were you ever in foster care? ___ Yes ___ No If yes, what ages? _____

Was your spouse/partner ever in foster care? ___ Yes ___ No If yes, what ages? _____

Child to Participate in Research Project

Name: _____ DOB:_____

Grade:_____

Date of Placement in your home:_____

Date of Adoption Finalization:_____

Did you foster this child prior to deciding to adopt?_____

Child's Special Needs:_____

Child Background Information:

Child's age at removal from birth-family_____

Reason for child's removal from birth-family:_____

Number of placements prior to your home:_____

Quality of placements prior to your home:_____

Number of unsuccessful reunification attempts with birth family and reason for lack of success:_____

Number of disrupted/dissolved adoptive placements and reason for disruption:_____

Did your child come from another state or community? If yes, where _____

Birth-family Information:

Is there current contact with birth family? If yes, with whom and how often? _____

Does your child have birth-siblings not in your home? If so, is there contact? _____

What aspects of the contact do you like? _____

What aspects of the contact would you like to change? _____

Therapeutic activities:

What therapeutic activities has your child previously been or is currently involved in?

Therapeutic Activity	Duration and	Goal of therapeutic	Was the activity

	frequency	activity?	successful?

What Extra-curricular activities has your child been or is currently involved in?

Extra-curricular activity	Duration and frequency	What are the benefits of this activity?	What would you like to change about this activity?

Child Challenges

What are the three most challenging issues in parenting your child?

1: _____

2: _____

3: _____

Other Children in Your Home

Name	Birth? Adoptive? Foster? Guardian?	Date of Birth	Date of Adoption / Placement if applicable	Currently living in your home? Y/N	Does this child have special needs? Please list.

Are any of your children birth siblings? If yes, which ones?_____

_____

Animals in Your Home

Do you currently have any pets in your home?_____

If yes, please list:_____

Please describe the relationship your child has with the pet(s): _____

Has your child ever been abusive or cruel to an animal? _____

Please print

CHILD BEHAVIOR CHECKLIST FOR AGES 6-18

For office use only
ID #

CHILD'S FULL NAME First Middle Last

CHILD'S GENDER ☐ Boy ☐ Girl

CHILD'S AGE

CHILD'S ETHNIC GROUP OR RACE

TODAY'S DATE Mo. ____ Day ____ Year ____

CHILD'S BIRTHDATE Mo. ____ Day ____ Year ____

GRADE IN SCHOOL _____

NOT ATTENDING SCHOOL ☐

Please fill out this form to reflect *your* view of the child's behavior even if other people might not agree. Feel free to print additional comments beside each item and in the space provided on page 2. ***Be sure to answer all items.***

PARENTS' USUAL TYPE OF WORK, even if not working now.
(Please be specific — for example, auto mechanic, high school teacher, homemaker, laborer, lathe operator, shoe salesman, army sergeant.)

FATHER'S TYPE OF WORK _____

MOTHER'S TYPE OF WORK _____

THIS FORM FILLED OUT BY: (print your full name)

_____

Your gender: ☐ Male ☐ Female

Your relation to the child:

☐ Biological Parent ☐ Step Parent ☐ Grandparent
☐ Adoptive Parent ☐ Foster Parent ☐ Other (specify)

I. Please list the sports your child most likes to take part in. For example: swimming, baseball, skating, skate boarding, bike riding, fishing, etc.

None ☐

	Compared to others of the same age, about how much time does he/she spend in each?				Compared to others of the same age, how well does he/she do each one?			
	Less Than Average	Average	More Than Average	Don't Know	Below Average	Average	Above Average	Don't Know
a. _____	☐	☐	☐	☐	☐	☐	☐	☐
b. _____	☐	☐	☐	☐	☐	☐	☐	☐
c. _____	☐	☐	☐	☐	☐	☐	☐	☐

II. Please list your child's favorite hobbies, activities, and games, other than sports. For example: stamps, dolls, books, piano, crafts, cars, computers, singing, etc. (Do ***not*** include listening to radio or TV.)

None ☐

	Compared to others of the same age, about how much time does he/she spend in each?				Compared to others of the same age, how well does he/she do each one?			
	Less Than Average	Average	More Than Average	Don't Know	Below Average	Average	Above Average	Don't Know
a. _____	☐	☐	☐	☐	☐	☐	☐	☐
b. _____	☐	☐	☐	☐	☐	☐	☐	☐
c. _____	☐	☐	☐	☐	☐	☐	☐	☐

III. Please list any organizations, clubs, teams, or groups your child belongs to.

None ☐

	Compared to others of the same age, how active is he/she in each?			
	Less Active	Average	More Active	Don't Know
a. _____	☐	☐	☐	☐
b. _____	☐	☐	☐	☐
c. _____	☐	☐	☐	☐

IV. Please list any jobs or chores your child has. For example: paper route, babysitting, making bed, working in store, etc. (Include both paid and unpaid jobs and chores.)

None ☐

	Compared to others of the same age, how well does he/she carry them out?			
	Below Average	Average	Above Average	Don't Know
a. _____	☐	☐	☐	☐
b. _____	☐	☐	☐	☐
c. _____	☐	☐	☐	☐

Be sure you answered all items. Then see other side.

6-1-01 Edition - 201

Please print. Be sure to answer all items.

V. 1. About how many close friends does your child have? (Do *not* include brothers & sisters)

☐ None ☐ 1 ☐ 2 or 3 ☐ 4 or more

2. About how many times a week does your child do things with any friends outside of regular school hours? (Do *not* include brothers & sisters)

☐ Less than 1 ☐ 1 or 2 ☐ 3 or more

VI. Compared to others of his/her age, how well does your child:

	Worse	Average	Better	
a. Get along with his/her brothers & sisters?	☐	☐	☐	☐ Has no brothers or sisters
b. Get along with other kids?	☐	☐	☐	

Please print. Be sure to answer all items.

Below is a list of items that describe children and youths. For each item that describes your child ***now or within the past 6 months***, please circle the ***2*** if the item is ***very true or often true*** of your child. Circle the ***1*** if the item is ***somewhat or sometimes true*** of your child. If the item is ***not true*** of your child, circle the ***0***. Please answer all items as well as you can, even if some do not seem to apply to your child.

0 = Not True (as far as you know) **1 = Somewhat or Sometimes True** **2 = Very True or Often True**

0 1 2 1. Acts too young for his/her age
0 1 2 2. Drinks alcohol without parents' approval (describe):_____
0 1 2 3. Argues a lot
0 1 2 4. Fails to finish things he/she starts
0 1 2 5. There is very little he/she enjoys
0 1 2 6. Bowel movements outside toilet
0 1 2 7. Bragging, boasting
0 1 2 8. Can't concentrate, can't pay attention for long
0 1 2 9. Can't get his/her mind off certain thoughts; obsessions (describe): _____
0 1 2 10. Can't sit still, restless, or hyperactive
0 1 2 11. Clings to adults or too dependent
0 1 2 12. Complains of loneliness
0 1 2 13. Confused or seems to be in a fog
0 1 2 14. Cries a lot
0 1 2 15. Cruel to animals
0 1 2 16. Cruelty, bullying, or meanness to others
0 1 2 17. Daydreams or gets lost in his/her thoughts
0 1 2 18. Deliberately harms self or attempts suicide
0 1 2 19. Demands a lot of attention
0 1 2 20. Destroys his/her own things
0 1 2 21. Destroys things belonging to his/her family or others
0 1 2 22. Disobedient at home
0 1 2 23. Disobedient at school
0 1 2 24. Doesn't eat well
0 1 2 25. Doesn't get along with other kids
0 1 2 26. Doesn't seem to feel guilty after misbehaving
0 1 2 27. Easily jealous
0 1 2 28. Breaks rules at home, school, or elsewhere
0 1 2 29. Fears certain animals, situations, or places, other than school (describe): _____
0 1 2 30. Fears going to school
0 1 2 31. Fears he/she might think or do something bad
0 1 2 32. Feels he/she has to be perfect
0 1 2 33. Feels or complains that no one loves him/her
0 1 2 34. Feels others are out to get him/her
0 1 2 35. Feels worthless or inferior
0 1 2 36. Gets hurt a lot, accident-prone
0 1 2 37. Gets in many fights
0 1 2 38. Gets teased a lot
0 1 2 39. Hangs around with others who get in trouble
0 1 2 40. Hears sound or voices that aren't there (describe): _____
0 1 2 41. Impulsive or acts without thinking
0 1 2 42. Would rather be alone than with others
0 1 2 43. Lying or cheating
0 1 2 44. Bites fingernails
0 1 2 45. Nervous, highstrung, or tense
0 1 2 46. Nervous movements or twitching (describe): _____
0 1 2 47. Nightmares
0 1 2 48. Not liked by other kids
0 1 2 49. Constipated, doesn't move bowels
0 1 2 50. Too fearful or anxious
0 1 2 51. Feels dizzy or lightheaded
0 1 2 52. Feels too guilty
0 1 2 53. Overeating
0 1 2 54. Overtired without good reason
0 1 2 55. Overweight
56. Physical problems ***without known medical cause:***
0 1 2 a. Aches or pains (***not*** stomach or headaches)
0 1 2 b. Headaches
0 1 2 c. Nausea, feels sick
0 1 2 d. Problems with eyes (***not*** if corrected by glasses) (describe): _____
0 1 2 e. Rashes or other skin problems
0 1 2 f. Stomachaches
0 1 2 g. Vomiting, throwing up
0 1 2 h. Other (describe): _____

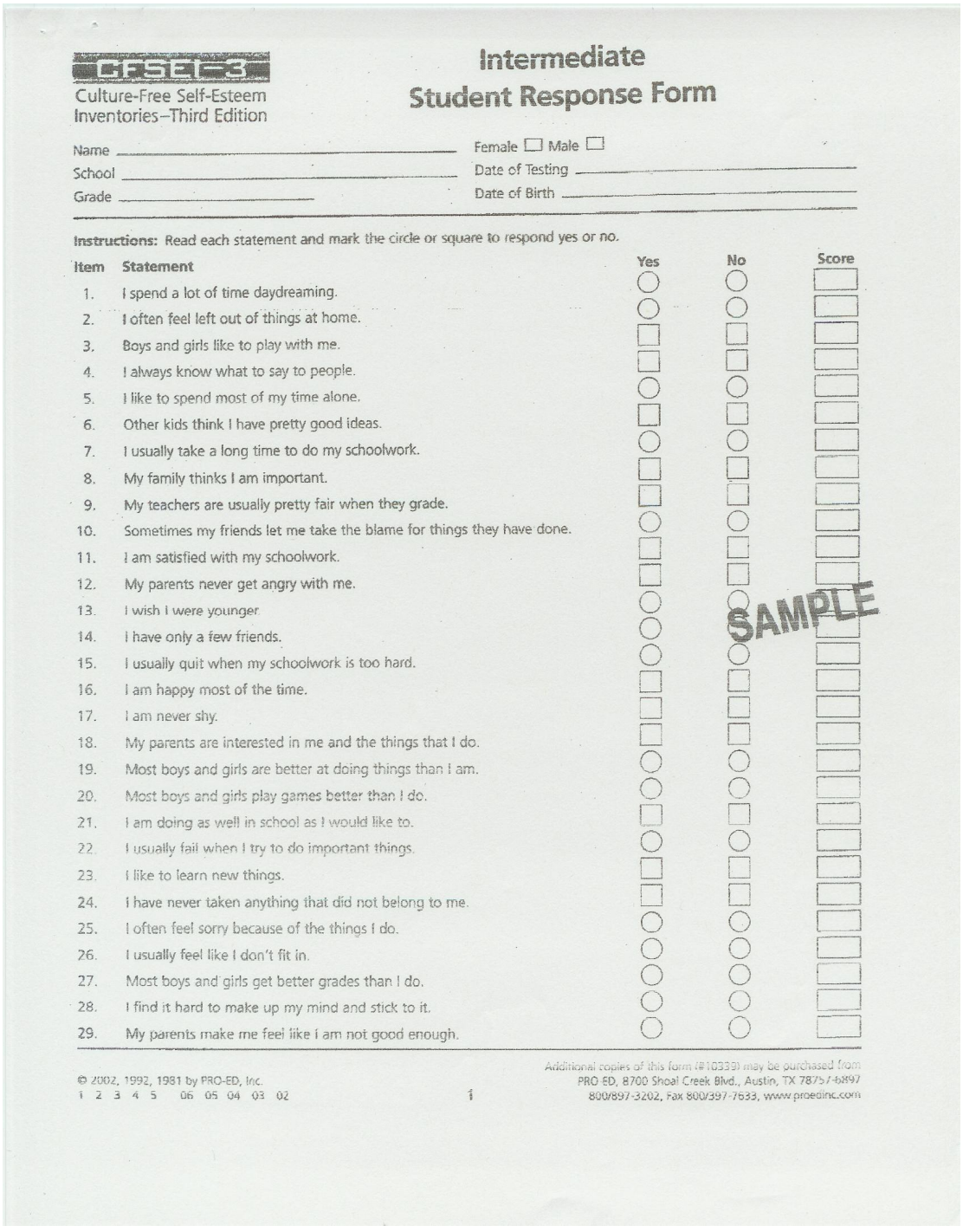
 Be sure you answered all items. Then see other side.

Please print. Be sure to answer all items.

0 = Not True (as far as you know) **1 = Somewhat or Sometimes True** **2 = Very True or Often True**

0 1 2 57. Physically attacks people
0 1 2 58. Picks nose, skin, or other parts of body (describe): _____
0 1 2 59. Plays with own sex parts in public
0 1 2 60. Plays with own sex parts too much
0 1 2 61. Poor school work
0 1 2 84. Strange behavior (describe): _____
0 1 2 85. Strange ideas (describe): _____
0 1 2 86. Stubborn, sullen, or irritable
0 1 2 87. Sudden changes in mood or feelings
0 1 2 88. Sulks a lot

Appendix F – Culture Free Self-Esteem Inventory-3



CFSEI-3
Culture-Free Self-Esteem Inventories–Third Edition

Intermediate Student Response Form

Name _____ Female ☐ Male ☐
School _____ Date of Testing _____
Grade _____ Date of Birth _____

Instructions: Read each statement and mark the circle or square to respond yes or no.

Item	Statement	Yes	No	Score
1.	I spend a lot of time daydreaming.	○	○	
2.	I often feel left out of things at home.	○	○	
3.	Boys and girls like to play with me.	□	□	
4.	I always know what to say to people.	□	□	
5.	I like to spend most of my time alone.	○	○	
6.	Other kids think I have pretty good ideas.	□	□	
7.	I usually take a long time to do my schoolwork.	○	○	
8.	My family thinks I am important.	□	□	
9.	My teachers are usually pretty fair when they grade.	□	□	
10.	Sometimes my friends let me take the blame for things they have done.	○	○	
11.	I am satisfied with my schoolwork.	□	□	
12.	My parents never get angry with me.	□	□	
13.	I wish I were younger.	○	○	
14.	I have only a few friends.	○	○	
15.	I usually quit when my schoolwork is too hard.	○	○	
16.	I am happy most of the time.	□	□	
17.	I am never shy.	□	□	
18.	My parents are interested in me and the things that I do.	□	□	
19.	Most boys and girls are better at doing things than I am.	○	○	
20.	Most boys and girls play games better than I do.	○	○	
21.	I am doing as well in school as I would like to.	□	□	
22.	I usually fail when I try to do important things.	○	○	
23.	I like to learn new things.	□	□	
24.	I have never taken anything that did not belong to me.	□	□	
25.	I often feel sorry because of the things I do.	○	○	
26.	I usually feel like I don't fit in.	○	○	
27.	Most boys and girls get better grades than I do.	○	○	
28.	I find it hard to make up my mind and stick to it.	○	○	
29.	My parents make me feel like I am not good enough.	○	○	

SAMPLE

1 2 3 4 5 06 05 04 03 02

Additional copies of this form (#10339) may be purchased from PRO-ED, 8700 Shoal Creek Blvd., Austin, TX 78757-6897 800/897-3202, Fax 800/397-7633, www.proedinc.com

Intermediate
Pg 2

Item	Statement	Yes	No	Score
30.	I never get angry.	☐	☐	☐
31.	Children often pick on me.	○	○	☐
32.	I have many friends about my own age.	○	○	☐
33.	Most boys and girls are smarter than I am.	○	○	☐
34.	Most boys and girls are better than I am.	○	○	☐
35.	I like everyone I know.	○	○	☐
36.	I would change many things about myself if I could.	○	○	☐
37.	I have often thought about running away from home.	○	○	☐
38.	I am as happy as most boys and girls are.	○	○	☐
39.	I can do things as well as other boys and girls do.	○	○	☐
40.	I worry a lot.	○	○	☐
41.	My parents understand how I feel.	○	○	☐
42.	I never worry about anything.	○	○	☐
43.	Other children are mean to me.	○	○	☐
44.	I am doing the best schoolwork that I can.	○	○	☐
45.	People can trust me to do what I promise to do.	○	○	☐
46.	My parents think I am a failure.	○	○	☐
47.	I always tell the truth.	○	○	☐
48.	I need more friends.	○	○	☐
49.	I feel as though my parents expect too much of me.	○	○	☐
50.	I will be an important person when I grow up.	○	○	☐
51.	I like playing games with other kids.	○	○	☐
52.	My teacher feels that I am not good enough.	○	○	☐
53.	I never do anything wrong.	○	○	☐
54.	Most boys and girls are stronger than I am.	○	○	☐
55.	I am proud of my schoolwork.	○	○	☐
56.	I often get upset when I am at home.	○	○	☐
57.	I am clumsy.	○	○	☐
58.	Other kids call me a crybaby.	○	○	☐
59.	I sometimes pretend to know more than I really do.	○	○	☐
60.	Other kids think I am a lot of fun to be around.	○	○	☐
61.	I usually do my homework on time.	○	○	☐
62.	I am never unhappy.	○	○	☐
63.	My teachers seem to like me.	○	○	☐
64.	I feel like nobody pays much attention to me at home.	○	○	☐

Appendix G – Parenting Stress Index-Short Form

Name_____ Gender ____ Date of birth _____ Ethnic group _____ Marital status_____

Child's name_____ Child's gender_____ Child's date of birth_____ Today's date_____

SA = Strongly Agree A = Agree NS = Not Sure D = Disagree SD = Strongly Disagree

1.	I often have the feeling that I cannot handle things very well.	SA	A	NS	D	SD
2.	I find myself giving up more of my life to meet my children's needs than I ever expected.	SA	A	NS	D	SD
3.	I feel trapped by my responsibilities as a parent.	SA	A	NS	D	SD
4.	Since having this child, I have been unable to do new and different things.	SA	A	NS	D	SD
5.	Since having a child, I feel that I am almost never able to do things that I like to do.	SA	A	NS	D	SD
6.	I am unhappy with the last purchase of clothing I made for myself.	SA	A	NS	D	SD
7.	There are quite a few things that bother me about my life.	SA	A	NS	D	SD
8.	Having a child has caused more problems than I expected in my relationship with my spouse (or male/female friend).	SA	A	NS	D	SD
9.	I feel alone and without friends.	SA	A	NS	D	SD
10.	When I go to a party, I usually expect not to enjoy myself.	SA	A	NS	D	SD
11.	I am not as interested in people as I used to be.	SA	A	NS	D	SD
12.	I don't enjoy things as I used to.	SA	A	NS	D	SD
13	My child rarely does things for me that make me feel good.	SA	A	NS	D	SD
14.	Sometimes I feel my child doesn't like me and doesn't want to be close to me.	SA	A	NS	D	SD
15.	My child smiles at me much less than I expected.	SA	A	NS	D	SD
16	When I do things for my child, I get the feeling that my efforts are not appreciated very much.	SA	A	NS	D	SD
17	When playing, my child doesn't often giggle or laugh.	SA	A	NS	D	SD
18.	My child doesn't seem to learn as quickly as most children.	SA	A	NS	D	SD
19.	My child doesn't seem to smile as much as most children.	SA	A	NS	D	SD
20.	My child is not able to do as much as I expected.	SA	A	NS	D	SD
21.	It takes a long time and it is very hard for my child to get used to new things.	SA	A	NS	D	SD

For the next statement, choose your response from the choices "1" to "5" below.

22. I feel that I am:
    1. not very good at being a parent
    2. a person who has some trouble being a parent
    3. an average parent
    4. a better than average parent
    5. a very good parent

	1	2	3	4	5

23. I expected to have closer and warmer feelings for my child than I do and this bothers me.	SA	A	NS	D	SD
24. Sometimes my child does things that bother me just to be mean.	SA	A	NS	D	SD
25. My child seems to cry or fuss more often than most children.	SA	A	NS	D	SD
26. My child generally wakes up in a bad mood.	SA	A	NS	D	SD
27. I feel that my child is very moody and easily upset.	SA	A	NS	D	SD
28. My child does a few things which bother me a great deal.	SA	A	NS	D	SD
29. My child reacts very strongly when something happens that my child doesn't like.	SA	A	NS	D	SD
30. My child gets upset easily over the smallest thing.	SA	A	NS	D	SD
31. My child's sleeping or eating schedule was much harder to establish than I expected.	SA	A	NS	D	SD

For the next statement, choose your response from the choices "1" to "5" below.

32. I have found that getting my child to do something or stop doing something is:
    1. much harder than I expected
    2. somewhat harder than I expected
    3. about as hard as I expected
    4. somewhat easier than I expected
    5. much easier than I expected

	1	2	3	4	5

For the next statement, choose your response from the choices "10+" to "1-3."

33. Think carefully and count the number of things which your child does that bother you. For example: dawdles, refuses to listen, overactive, cries, interrupts, fights, whines, etc.	10+	8-9	6-7	4-5	1-3
34. There are some things my child does that really bother me a lot.	SA	A	NS	D	SD
35. My child turned out to be more of a problem than I had expected.	SA	A	NS	D	SD
36. My child makes more demands on me than most children.	SA	A	NS	D	SD

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Appendix H

Name:_____ Date:_____

1) What is your overall opinion of the therapeutic riding program so far?

2) Have you seen any changes in your child since beginning the program? If so, please describe the changes.

3) Has your relationship with your child changed since beginning the program?

4) You indicated the following areas of need in your initial interview. Please comment on how the program has impacted each of these areas if you feel it has. If it has not, please indicate ways in which you think it might.
   A.
   B.
   C.

5) Do you like being able to spend time with the other Mothers? Would you like more or less time?

6) What do you like best about the program?

7) What would you like to see change in the program?

Appendix I – Interview Guiding Questions

Mother Interview Schedule #1 (Pre-intervention)

1) Since the placement of _____ (child's name) in your home, what challenges have you faced in parenting your child? [Probe: behavioral problems, emotional problems, relationships, discipline]
2) Which of these challenges have caused the most stress in your family and your relationship your child? [Probe: rank order the challenges, why are some issues more stressful than other, how do you deal with the stress, what would help relieve the stress]
3) Please describe your relationship with your child. [Probe: feelings, interactions]
4) How do you think your child would describe her relationship with you? [Probe: feelings, interactions]
5) What have you done to address these challenges? [Probe: therapy, support groups, meds, treatment groups. Probe: how long and have any worked]
6) How hopeful are you about your child's future?
7) Do you have any pets in your home? If so, what impact have the pets had on your child? [Probe: responsibility, relationship, empathy]
8) Have you or your child ever worked with horses before? [Probe: when, where, what, how long]
9) What made you decide to enroll in this study?
10) What expectations do you have for you and your child in participating in this therapeutic horseback riding program?

Mother Interview Schedule #2 (Post-intervention)

1) What is your overall opinion of the therapeutic riding program that you and your child have just completed?
2) What did you like about the program? What did you not like?
3) Have you seen any changes in your child over the course of participating in this program? [Probe: what has changed, give examples, how does the change impact your family]
4) Has your relationship with your child changed since participating in this program? [Probe: emotional connection, relationship, attachment, discipline]
5) How did this program impact you/your child? Your relationship with your child?
6) How did your child relate to the horses? How did your child interact with the barn environment? Did she develop a relationship with her horse? How did that relationship impact your child?
7) Did you receive support from being with other Mothers who have child's similar to yours? [Probe: how, ask for examples]
8) What would change about the program? Would you do it again? Recommend others to participate?
9) Is there anything else that you would like to add about you, your child or the program?

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