

Equine-Assisted Family Therapy for High-Risk Youth

Defining a Model of Treatment and Measuring Effectiveness

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Executive Summary

This study describes the model of treatment and reports results from a study of client outcomes in the Journey Home, Inc. program for equine-assisted family therapy (EAFT) from November 10, 2001 to June 1, 2002. Treatment outcomes were evaluated through parent assessment of child and adolescent functioning at admission and discharge utilizing the Youth Outcome Questionnaire (Y-OQ) (Burlingame, Wells, & Lambert 1995) as well as from a parent survey given at discharge. A subsequent report will present data from follow-up assessments on the same clients at one year from discharge. Clients in this study were in equine-assisted family therapy for an average of 5 sessions at a cost of \$800 per family.

Eleven children and adolescents from six families participated in this study. Seven of the clients were male and four were female, they ranged in ages from 8 to 17. Clients entered the program by referral from an inter-agency assessment team located at the Huerfano/Las Animas Family Resource Center. All of the clients had received prior treatment on an outpatient basis, and four of the clients had previously been admitted for inpatient treatment at the state psychiatric hospital. The most prevalent primary diagnosis was Conduct Disorder. Four of the clients had been diagnosed with a Psychotic Disorder per the DSM IV. Five of the clients had secondary diagnosis of substance abuse.

Total Y-OQ scores averaged 71.5 at admission and 47.6 at discharge and demonstrated an average reduction of 23.9 points. The reduction in total scores is consistent with clinically significant improvement in treatment as defined by the Y-OQ instrument. Eighty-two percent (82%) of the clients demonstrated clinical improvement.

Results from the parent survey showed that clients found that the involvement with the horses to contribute to their subjective experience of progress in treatment. Many of the parents used descriptors such as “the best counseling ever,” “relaxed and comfortable” and stated that they would recommend this model of therapy to others.

Results of this study indicate that participation in the EAFT program led to a statistically significant reduction in the severity of behavioral and emotional symptoms as perceived by the parents of the clients as measured by the Y-OQ questionnaire.

Introduction

Whether one adopts a purely empirical inquisitiveness, or is drawn more to the spiritual view of equine-assisted psychotherapy, it is difficult to overlook the fact that horses fit nicely into a structural and strategic model of family therapy. Horse herds and human families have many similarities. The relative rarity of actual violence in horse herds is testimony to the effectiveness and stability of the social hierarchy (Budiansky, 1997). Research in structural and strategic family therapy has demonstrated the effectiveness at amelioration of adolescent behavioral problems by the therapeutic realignment of the hierarchy of the client family (Mann, B., 1990). The author believes that the isomorphic properties that exist between horse herds and human families create opportunities for the application of highly specific, structured therapeutic strategies for use with families of high-risk youth.

Anyone who lives in a cattle ranching community and takes the time to talk with the families that have raised children along side of horses, will quickly learn that horses have played a significant role in shaping the parenting styles of these families over generations. Rex Allen, actor, singer and cowboy from Sonita, Arizona states “there is something about a horse. I was raising horses when I was raising my children. I raised them together. I credit that relationship with the fact that not one of my children has ever been involved with drugs” (Arnold, 2001).

Equine-assisted psychotherapy (EAP) is a rapidly emerging treatment in the mental health field as evidenced by the fact that the Equine-Assisted Growth and Learning Association (EAGALA) has grown to over 1,000 associates since being

officially founded in July 1999 (Thomas, 2002). Mainstream methods for addressing the problems that currently face our youth and families may not be effective in many instances. Equine-assisted psychotherapy can be viewed as an alternative method of treatment that has been cultivated from human affiliation with horses over the five previous millennia (Budiansky, 1997).

Modern psychotherapies may be facing challenges imposed by the rapid infusion of technology into our culture. Yet, Paul Shepard (1982) proposes that the current difficulties being seen in our youth culture originated ten thousand years ago with the practice of agriculture and resulting in an “ontogenetic crippling”. “They had begun to manhandle their environment in ways that broke the bond that had for so long kept them connected to nature.” “The result has been a chronic madness...” yet, Shepard goes on to state that he believes that traces of our original ecological harmony may remain latent within us, “an inherited possession... a legacy of the evolutionary past in which human and nonhuman achieved a healthy rapport.”

Wilderness programs for youth have proliferated in this country in the past three decades with the field of Outdoor Behavioral Healthcare (OBH) emerging with more than 100 programs in the United States and serving more than 10,000 clients and their families annually (Russell & Hendee, 2000). A major appeal of OBH programs when compared to more traditional forms of treatment may be that a “wilderness challenge approach provides an alternative for resistant adolescents unwilling to commit to traditional psychological treatment” (Russell & Hendee, 2000). The impressive outcome data being generated by OBH programs (Russell, 2001) indicates that this alternative to traditional psychotherapy is a useful method for reaching troubled adolescents and may lend support

to statements by Paul Shepard (1982) regarding the need for humans to re-establish their connection to nature.

The new millennium offers practitioners in the mental health field the opportunity to integrate findings from recent neuroscience studies into alternative methods for more effectively serving the youth of today. John Ratey, M.D., associate clinical professor of psychiatry at Harvard Medical School, states that “Both drug and talk therapy are usually unrewarding” when treating children and adolescents (2001). He goes on to state that “young bodies are too sensitive to the chemicals, and patients of that age are cognitively unable to fully and accurately articulate their emotional experiences.” Ratey seems to be suggesting that there is a combination of factors that may contribute to improvements in the delivery of modern psychotherapy. A shift from utilizing linear thinking to a heavier reliance upon symbolism or metaphor may be necessary to assist youth in high-risk contexts. “Our troubled world, too, is becoming too complex for logical argumentation, and may have to change its thinking: real trust, when emotions are running high, is based on analogy, not calculation.” In addition to utilizing metaphor communication for effective therapies, physical movements can directly improve a client’s ability to learn due to mounting evidence that an individual’s ability to learn new and recall old information is improved by biological changes in the brain brought about by physical movement (Ratey, 2001). Physically active or experiential therapies may in fact enhance a client’s assimilation of new information due to the fact that “ the primary motor cortex, basal ganglia, and cerebellum, which coordinate physical movement, also coordinate the movement of thought. It may be that as this happens, it causes the brain to establish fundamental firing patterns among complex thoughts, helping us to find a solution or

generate a creative idea” (Ratey, 2001). Ratey (2001) believes that current therapies may be over-reliant upon language and cognition in order to achieve beneficial outcomes. A person’s ability to read nonverbal cues may play a major role in their level of social functioning. Performing the “social dance—engaging in the right physical moves in concert with others---is a very important aspect of social skills.” It has been demonstrated that many people who have been diagnosed with ADD in fact may be suffering from a nonverbal learning disorder now known as “right hemisphere deficit syndrome” (RHDS) (Ratey, 2001). It may be concluded that Ratey is recommending that therapeutic strategies with youth should include metaphor communication and physical motion to assist the client in developing stronger skills in reading nonverbal cues in interpersonal relationships.

H. Charles Fishman, well known author in the field of structural family therapy, writes that “treating the troubled adolescent apart from an ongoing social context is absurd”; “the most powerful social therapeutic intervention for working with adolescents is family therapy” (Fishman, 1988). Fishman, in his book *Family Therapy: The Treatment of Choice for Adolescents*, cites numerous research studies which support the effectiveness of structural and strategic family therapy as developed by such great masters as Salvador Minuchin, Braulio Montalvo, and Jay Haley. Fishman (1988) states that “family therapy has been proven to be so effective because it involves all of the significant people in the life of the adolescent. This inclusiveness means that changes tend to be maintained, because the family system itself, not just individuals, is being transformed.”

One of the key concepts that a structural-strategic model of family therapy addresses is the likelihood of the existence of inappropriate cross-generational coalitions in families of delinquent and emotionally disturbed adolescents. Cross-generational coalitions are typified by parents who are not able to set limits on his/her child or teen, thus giving the appearance of being of equal status in the relationship. A study conducted by Barton Mann (et al., 1990) investigated two important theoretical assumptions of family therapy: 1.) child behavior problems are associated with cross-generational coalitions, and 2.) treatment of these coalitions using family therapy leads to decreases in individual symptomatology. Findings of his study supported his assumptions and linked reductions in adolescent and paternal symptoms to positive changes in marital relations as a result of systemic conceptualization and treatment of presenting problems in adolescents.

Another study compared the effectiveness of structural family therapy, individual psychodynamic child therapy, and a recreational control group for 69, 6-to-12 year old Hispanic boys who presented with behavioral and emotional problems. Structural family therapy was more effective than psychodynamic child therapy in protecting the integrity of the family at 1-year follow-up (Szapocznik et.al., 1989).

An obvious question remains; *why use horses when providing family therapy to high-risk youth?* Lynn Thomas and Greg Kersten (2002), co-founders of EAGALA, respond to this question by stating that “horses are very much like humans in that they are social animals. They have defined roles within their herds. They would rather be with their peers. They have distinct personalities, attitudes, and moods. An approach that seems to work with one horse, does not necessarily work with another. At times, they

seem stubborn and defiant. They like to have fun. In other words, horses provide vast opportunities for metaphorical learning.”

Linda Kohanov, author of *The Tao of Equus* (2002), writes that “interacting with these animals can be immensely therapeutic physically, mentally, and spiritually, helping people reawaken long-forgotten abilities that are capable of healing the imbalances of modern life.” Ms. Kohanov eloquently describes the feelings that seem to be echoed by many people who have dedicated their lives to interacting with horses. Our society seems to be developing a resurgence in its interest in horses as evidenced by best selling books such as *The Man Who Listens to Horses* by Monty Roberts and *The Horse Whisperer* by Nicholas Evans.

Strong evidence exists that suggests that horses were first domesticated and ridden approximately 6,000 years ago; roughly 500 years prior to the oldest known wheel (Budiansky, 1997). “Equine society and human society had enough in common to make domestication possible—a common “language” of dominance and submission that was intuitively and mutually intelligible, a common evolutionary adaptation to a grasslands habitat, and, a common social fabric built upon both subordination to authority and trust.”(Budiansky, 1997).

Chris Irwin, a well- known horse trainer and author from Canada, is known for his focus upon the need for trust and honesty in developing a partnership with horses. In his book, *Horses Don't Lie* (2000), he writes: “you see, horses don't lie. They don't separate how they feel and how they act. Whether they're feeling scared, confused, submissive, bold, or just relaxed and confident, they tell you exactly where they're at and what they want from you and mean it down to the bone.” Mr. Irwin's comments regarding the

honesty of horses leads this author to the opinion that behaviorally disordered youth may benefit greatly from partnerships with equus.

Budiansky (1997) suggests that by affiliating with humans and submitting to domestication that horses were spared from extinction. Some practitioners of equine-assisted psychotherapy may be tempted to conclude that *equus* has emerged as an ambassador from our ecosystem in order to facilitate the reintegration of humankind into the hierarchy of living beings; thus helping to heal our species from the depersonalizing effects of technological progress.

The EAFT model of treatment that is used in this study may contain key components of wilderness therapy, as well as many of Ratey's suggestions for improving current psychotherapeutic interventions. Horses require participants to be involved in a setting that often times may allow them to be more intimately involved in the natural world. Use of metaphor, physical activity, and the reliance upon nonverbal communication are an integral part of this work.

Horses require humans to pay close attention to the development and constant maintenance of hierarchy during therapy sessions. Horses have clearly defined roles and status levels within the herd and are continuously involved in testing their rank in relation to other horses. Horses will also strive to dominate people in order to become the "alpha" member of the relationship if they are not thwarted by assertiveness on the part of the individual who is interacting with them. EAFT creates opportunities for structured activities to be developed that require families to become clearer in the marking of interpersonal and subsystem boundaries, provision of immediate and consistent feedback to other family members, and emphasize a need for changes in transactional patterns of

family interaction within the context of the psychotherapy session. There may be an additional advantage to using horses as facilitators of psychotherapeutic change. Not all cultures are ingrained with a belief that psychotherapy is a beneficial tool in assisting at-risk youth and families. It is possible that the use of horses acts as a form of cultural accommodation with many families and becomes a tool to build the necessary rapport in order for therapists to assist reluctant consumers of mental health care.

This study proposes that equine-assisted, structural-strategic family therapy (EAFT) is an effective method for treating emotional and behavioral disorders in high-risk youth. The Youth Outcome Questionnaire (Y-OQ) (Burlingame et.al. 1995) is used as a quantitative pre and post treatment measure of the clinical effectiveness of the treatment. A parental survey is used at post-test as a qualitative measure in order to obtain information that may not appear in the interpretation of the Youth Outcome Questionnaire. Finally, this study will look at several case examples in order to provide the reader with specific equine-assisted intervention strategies, as well as individual families' observed responses to the treatment model.

Literature Review

A review of available data bases (APA and Ingenta) did not reveals that very few studies have been conducted regarding the effectiveness of equine-assisted psychotherapy. The studies cited below, with exception of the Mann (1997), (1998), (1999) outcome studies and the Bray (2002) masters thesis, are located in the annotated bibliography for equine-facilitated psychotherapy that is available through the Equine Facilitated Mental Health Association, a section of the North American Riding for the Handicapped Association (NARHA). The author was unable to locate a single article or

study in any database or bibliography that details ways of applying established family therapy concepts to an equine-assisted context.

Until recently the use of horses to assist people with emotional difficulties was conducted in relatively isolated instances. The development of EAGALA and EFMHA have made contributions to the field by promoting standards of practice and creating opportunities for networking among practitioners. The origins of equine-assisted psychotherapy are unclear however.

Use of horses for providing mental health care likely originated in Germany in the 1960's and emerged as an offshoot of therapeutic horsemanship work that had been ongoing in England and Germany with disabled children since the end of world war two (Ringbeck, M, 1982). Ringbeck (1982) measured 22 children using personality and educational questionnaires. The group of 12 children in the experimental group for therapeutic riding showed "remarkable improvement in motoric, emotional and social behavior, as compared with the 10 in the control group."

D.K Emory (1992) conducted a study of the effects of therapeutic horsemanship on the self-concept and behavior of asocial adolescents. His findings demonstrated statistically significant positive changes in self-concept, popularity, happiness and satisfaction after a 12-14 week trial in the experimental group for therapeutic horsemanship within a residential treatment center setting. Emory used the Child Behavioral Checklist and Teacher Report Form (Achenbach), and the Piers-Harris Self Concept Scale. This is the earliest quantitative study that exists in the searchable data bases.

Tucker (1994) measured the effects of weekly equine facilitated horseback riding on a group of 15 adolescent males residing in a treatment center for emotional disturbances. The study measured changes in locus of control, self-concept, self-esteem, impulsivity and hopelessness by administering the Child Behavioral Checklist, Norwicki-Strickland Locus of Control Scale and the Piers-Harris Self-Concept Scale in addition to 2 constructed scales designed to measure impulsivity and hopelessness. “The hypothesis was not supported by statistics, but tendencies were evident in the direction of positive changes in students scores with the post-tests, following 8 weeks of therapeutic riding (NARHA, 1997).

E.T. Pearson (1997) conducted a retrospective review of the medical charts of 40 residential foster care males between the ages of 10-18 over a 2 year period. The majority of the boys participated in weekly therapeutic horsemanship group sessions of 1-2 hours length. Pearson was interested in studying the relationship and proximity in time of the riding program and antisocial outbursts. The study can not define a direct relationship of cause and effect due to its limitations in research design, but the possibilities of therapeutic outcome are explored (NAHRA, 1997).

Mann (1997) monitored the progress of eleven juvenile delinquents on probation over a period of three months in the Ride to Pride Partnership Program in Las Vegas, New Mexico. Performance targets were set to measure the effectiveness of EAP. The targeted behaviors were: elimination of further law enforcement arrest, improvement in family interactions as reported by the parents, elimination of positive drug urinalysis testing, and an increase in school attendance to 90% of scheduled classes. Monthly reports from probation officers, parents, school officials, counselors, and horsemanship

instructors were tracked along with the results of random urinalysis testing. A control group of juveniles enrolled in traditional office therapy was compared with the same performance targets as the experimental therapeutic horsemanship clients. The results indicated that 53% of the experimental group achieved the performance targets by the end of the twelve week program as compared to 11% of the control group. Mann concluded that there was a 43% increase in performance target attainment for juveniles participating in the therapeutic horsemanship program over office-based therapy

A replication of the study conducted at the Ride to Pride Partnership was performed at Journey Home in 1998 without using a control group for comparison. The same performance targets were utilized and nine juvenile delinquents on probation were included in the study. Within the first eight weeks of EAP groups, six out of the nine adolescents had achieved their performance targets. A one -year follow-up indicated that out of the six successful outcomes, four had been able to maintain them.

Bray (2002) attempted to prove that participants in EAP would demonstrate a greater decrease in depression and anxiety than a control group and comparison group. It was also hypothesized that the EAP group would demonstrate a greater increase in self-concept than the normal population and the traditional therapy group. Bray utilized the Beck Youth Inventories Combination Booklet at the beginning and end of a 4-6 week period of participation. Despite insignificant results, Bray suggests that her findings may have been hindered by a lack of sample size and use of a qualitative method for gathering data. Bray (2002) believed that the magic of the EAP work was not captured by using purely quantitative methods for gathering data and went on to write that “Perhaps qualitative research is a method to consider in future studies if paired with effectiveness

testing using quantitative data. This approach would result in solid data and would allow for the magic of EAP to be examined in an experimental setting.” Bray also discusses an alternative to traditional efficacy and effectiveness research known as “ideographic or profile approach” as described by Donenberg (1999). “The ideographic approach focuses on a single participant, assessing specific factors important to the individual’s therapeutic progress and tracking the individual closely to see if a particular type of therapy is working” (Bray,2002).

It is apparent that there is a lack of quantitative and qualitative research data examining the effectiveness of equine-assisted psychotherapy. There are no prior studies which describe a model for treating families with an equine-assisted approach and attempt to measure outcomes. This study will attempt to provide support for the development of a model, measurement of outcomes for treatment, and suggest further research to support the likelihood of duplicating the work in other geographic locations.

Along with concerns about the lack of research to evaluate the effectiveness of EAP, additional questions remain such as the cost-effectiveness of the work, and which clients or families are most likely to benefit from an equine-assisted approach. Measuring cost-effectiveness is difficult. Initial studies made a comparison between the cost of in-home services (an average of \$3,800 per year) and out-of-home placement (between \$5,000 and \$50,000 per year; Bryce, 1982). Russell (2000) states that the cost of treatment for wilderness programs ranges from \$123 per day for adjudicated to \$161 per day for private placement programs, averaging \$151 per day. The average length of stay for youths participating in a wilderness program is 38 days which yields an average expenditure of \$5,738 (Russell, 2001). The EAFT sessions at Journey Home cost \$150

per 1.5 hour weekly session and required an average of only five sessions to attain treatment goals set forth by the parents involved in this study. Cost differences between in-patient or out-of-home treatment/placement is significant by any measure (Fraser et al., 1997).

The purpose of this study is to describe a free-standing, outpatient, equine-assisted family therapy program; examine its clinical and cost effectiveness; and determine the feasibility of the EAFT program as an alternative to more costly and restrictive inpatient, residential, foster care, or day treatment programs.

This study is an effectiveness study and is intended to portray how treatment outcomes manifest in a real life scenario. The research questions focus on clinical effectiveness and warrant a methodology that is specifically designed for assessment of clinical significance of change. The methodology of Jacobson and Truax (1991) allows for classification of individual change scores from a clinical rather than a statistical standard and allows for more effective judgments concerning the meaning of treatment outcome scores (Mosier et al., 2001). A description of the methodology of the study will follow a brief description of the EAFT treatment model utilized by Journey Home, Inc. in order to better assist the reader with the nature of this specific equine-assisted program.

Description of the Program

This study took place at the Journey Home, Inc. equine-assisted growth and learning center in Walsenburg, Colorado. Journey Home was founded in 1995 by Deb Williams and provides outpatient group, individual and family equine-assisted psychotherapy services to local youth and families. In addition to therapeutic programs,

Journey Home offers growth and learning groups for children and teens when parents are unable or unwilling to participate in the family therapy program. The growth and learning groups are also utilized for aftercare support for youth that have successfully completed the family therapy program. Wilderness horse pack trips are offered for groups of youth and for families during the summer months. Journey Home is a private, not-for-profit agency that receives referrals from individuals, schools, counselors, probation officers, agencies, and physicians. Most of the funding for the program is derived from state grant money that is managed the Huerfano/Las Animas County Family Resource Center.

Clients are screened for admission to the family therapy program during regularly scheduled clinical assessment meetings that are attended by representatives of various local youth and family agency staff. General criteria for selection include a) the identified patient in the family has received a psychiatric diagnosis from the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed. [DSM-4]; American Psychiatric Association [APA], 1994); b) the identified patient is of sufficient severity to be considered for risk of out of home placement by the referring individual or agency; c) the identified patient has a history of unresponsiveness to traditional individual, group and family therapy methods, and d) the family agrees to have all members of the household attend at least three EAFT sessions. This program targets children and adolescents with psychiatric and emotional disorders that are considered primary problems although juvenile delinquency issues are present.

Once the family is discussed and approved for inclusion at the clinical assessment team meeting, the referring agency or individual is contacted and informed of the

approval for services. The family is then contacted by the referring clinician or agency representative and informed of the approval and then given a contact number to call Journey Home to schedule an intake meeting.

The initial family session at Journey Home is attended by all members of the identified patient's household, the therapist, and the equine professional. The therapist disclosure statement, a hold harmless release of liability statement, the informed consent for research participation form, and a description of the program services statement are presented verbally and then in writing for the parents or guardians to sign. The Y-OQ is then discussed and administered to the parents or guardians.

Once the paperwork portion of the intake has been completed, the therapist and equine-professional conduct a family interview in order to develop specific treatment goals for the identified patient and the family. The family interaction patterns are observed and the therapist constructs a genogram to visually aid the treatment team in the construction of session interventions along structural family therapy concepts. The family is then taken out to casually interact with the 25 horses that make up the Journey Home "family" of equine helpers. The horses roam free on 40 acres during their "off" time and the family members are observed in this initial interaction period as a way of allowing the treatment team to further assess family level of functioning. The family is scheduled to return for their next session with the agreement that the therapy team will design a specific equine-assisted family therapy exercise to target the first treatment goal established by the family.

Equine-assisted psychotherapy should be conducted by a professional treatment team that includes a horse professional, a clinical professional and one or more horses

(Thomas, 2001). The pairing of the horse professional with the therapist is an essential component to the EAFT model provided at Journey Home. The horse professional attends to safety issues and also monitors the responses of the horses to the clients, thereby providing the therapist with valuable, real-time, feedback concerning the emotional state of the clients. Horse professionals may possess finely tuned observation skills regarding the subtle transactional patterns that occur within a family. It is likely that the subtlety of horse “language” as taught to the horse handler by their horses, has resulted in an increased sensitivity to communication patterns. The horse professional’s attendance to tracking the interactional patterns between family members and with the horses can free the therapist to attend to the development of systemic hypothesis and subsequent interventions to be used with the family. The process is similar to the use of the one-way mirror in clinical supervision. The mirror allows the supervisor to maintain greater objectivity from a slightly detached position to the session. The horse professional can interact directly with the family members and the horses during the session and allow the clinician to step back for a more objective view of the family situation.

Many of the families referred and accepted into EAFT at Journey Home are sent by therapists and agencies for an adjunct treatment of the family which is conducted concurrently with medication monitoring by a psychiatrist and individual therapy by the referring clinician or agency. Clients in this study were not seen for individual therapy during the course of family therapy as a way of reducing the potential of a confounding variable from treatment response being indistinguishable from the two sources of intervention. Medication monitoring by a psychiatrist was continued for several clients during the course of the family therapy intervention. The average length of treatment for

families in the EAFT program study was 5.3 visits over the course of 8.7 weeks duration. Discharge from the EAFT program is determined by a collaboration of the therapy team and the parents or guardians in accordance with family's attainment of the specific treatment goals agreed upon in the initial family meeting. Families are free to contact the Journey Home therapy team after discharge should additional sessions be needed. Many of the children and adolescents requested to be discharged into aftercare growth and learning groups, and they participated for an average of 8 sessions. The therapy team makes recommendations for continued treatment to the referring agency and clinician when appropriate via a signed consent to release information by the parent or guardian.

Research Methods

A pre-test and post-test research design was used with the Y-OQ and a posttest design was used with the parent survey measurements. A total of 11 children and teenagers belonging to 6 families completed the study during the time period of November 10, 2001 to June 1, 2002. The parents from the 6 families were invited to select which of the children in the family they wished to identify as being problematic and subsequently included in pre and post testing by the Y-OQ. Three youth from three separate families were not included in the Y-OQ testing due to a parental decision to omit them for lack of identifiable presenting problems.

The following research questions were addressed in this study:

Research Question 1. What outcomes resulted from EAFT treatment as measured by Y-OQ composite and content area score differences between admission and discharge?

Research Question 2. How did treatment outcomes vary according to client presenting symptoms, diagnosis, and severity?

Research Question 3. How did treatment outcomes compare to other methods of therapy as measured by the Y-OQ?

Data collection and entry was conducted at the Journey Home program by the investigating team between November 10, 2001 and June 1, 2002.

Participation of each household member of a client family was a prerequisite to enrollment. The investigating team carefully explained the research with an emphasis on the importance of the data being utilized to improve EAFT treatment at the program, and for the potential of generalizing this treatment for use in other program locations. The participants were informed that their participation was purely voluntary and that their consent to participate could be revoked at any time. Parents, guardians and clients were assured of the confidentiality of their participation in writing and verbally by the team of investigators.

Parents and legal guardians were asked to complete the Y-OQ questionnaire as a team during the initial session at Journey Home. For divorced or separated parents, the primary care parent or legal guardian was asked to complete the questionnaire. Stepparents were encouraged to complete the questionnaire along with the biological parents when applicable.

Parents or guardians were empowered in the process of identifying treatment goals and the length of therapy beyond 3 visits. The parents or guardians were asked to complete a Y-OQ questionnaire and a survey questionnaire at the completion of the final session. Questionnaires were filed in each individual families' client record and were accessible only by the principal investigator.

Y-OQ data was analyzed by calculating the average differences between admission and discharge composite and subscale scores. A paired sample t-test was conducted to determine statistical significance between admission and discharge scores. Differences in treatment outcome according to client diagnoses was calculated utilizing a paired t-test to determine statistical significance from admission to discharge scores. A content analysis was utilized to score the results of the post-test parent survey to determine parallels in the respondent's subjective experience and also to see if a correlation existed between total score differences on the Y-OQ and descriptions of the treatment by parents on the surveys.

Limitations

There are several potential areas of error to be scrutinized in this study. The first limitation to note is the small sample size. This may be due to the requirement that each member of a household attend every family therapy session. The research was conducted in a county that has under 10,000 residents, thereby making it difficult to obtain a high volume of referrals to the program. A second limitation of the study is the lack of a control group.

The second limitation is that some families were excluded from participation due to the refusal of one or more household members with the possibility that non-participant bias has occurred. It is possible that there were consistent differences between families who were excluded from participation due to the inability for all members to attend and for those who were able to have all members in attendance.

The third potential source of bias may result from parents and guardians who initially agreed to participate in the study and failed to attend sessions or complete discharge questionnaires. Bias could result if these scores are consistently different from respondents providing complete data. Some parents completed assessments at admission and did not complete discharge assessments due to discontinuation of treatment. Discontinuation was due to either out of home placement of the children, or failure to attend scheduled sessions.

A potential confounding variable that should be considered as a potential limitation of this study is the fact that several of the children/adolescents had been taking psychotropic medications during the study period. It may not be possible to differentiate effects from medication from the effects of treatment in these cases.

Measurement

The Youth Outcome Questionnaire is a measure of treatment progress for children and adolescents and is based upon parent report. “In contrast to traditional diagnostic measures oriented to the measurement of psychopathology, it is specifically constructed to assess the occurrence of observed behavior

change” (Burlingame et.al., 1996). Psychometric calculations made from a normative database permit determination of the client’s behavioral similarity to in-patient populations, out-patient populations, and a large sample of non-treatment children and adolescents.

The Y-OQ is composed of 64 Likert scaled questions that make up six separate subscales that are designed to measure behavioral categories of children and adolescents with disturbances of mood and conduct. The six subscales are described as follows:

- 1.) The Intrapersonal Distress scale (ID) is designed to measure the amount of emotional distress present in the child/adolescent. Symptoms of anxiety, depression, fearfulness, hopelessness, and self-harm are measured by this subscale.
- 2.) The Somatic scale (S) assesses symptoms such as headaches, dizziness, stomachaches, nausea, bowel difficulties, and pain or weakness in joints. High scores can indicate the presence of somatic problems while a low score may indicate either absence or unawareness of such symptoms by the client’s caregiver.
- 3.) The Interpersonal Relations scale (IR) assesses issues regarding the child or adolescent’s familial and peer relationships. Variables such as attitude toward others, communication and interaction with peers, cooperativeness, aggressiveness, and defiance may be indicated by high scores.
- 4.) The Critical Items scale (CI) describes common traits of children and adolescents who have been institutionalized for short-term psychiatric

stabilization. This scale measures the presence of paranoia, obsessive-compulsive patterns, hallucinations, delusions, suicidal ideation, mania, and eating disorder issues. High scores on this scale indicate that the client may need immediate consideration for a period of in-patient stabilization.

5.) The Social Problems scale (SP) relates to behaviors such as aggressiveness, delinquency, destruction of property, truancy, and substance abuse. Items in this scale are slow to change, whereas content tapped by many of the other scales often changes over a period of time as a result of treatment intervention,” (Burlingame et al., 1996).

6.) The Behavioral Dysfunction scale assesses the child or adolescent’s ability to deal effectively with frustration, organize tasks, concentration, impulsivity, and tendency towards hyperactivity. The scale is not designed to diagnose the presence of specific disorders, but is intended to suggest the presence of change in behavior as a result of treatment intervention.

The Total score is a summation of items from all six scales and reflects the presence of a global level of functioning with regards to the child or adolescent. The total score “tends to be the best index to track global change and has the highest reliability and validity” (Burlingame, et al, 1996).

The reliable change index (RCI) is used to determine if the change exhibited by an individual in treatment is reliable or clinically significant (Jacobson & Truax, 1991). In order for a child or adolescent’s score to be considered clinically significantly changed, it must exceed at least a 13 point drop on the total score of the Y-OQ. The RCI's for each of the subscales are:

Intrapersonal Distress-8, Somatic-5, Interpersonal Relations-4, Social Problems-5, Behavior Dysfunction-8, and Critical Items-5.

The reliability of the Y-OQ was tested using Chronbach's alpha with a student sample drawn from a large elementary school (N=41), the community normative sample of 651 subjects and the clinical normative sample of 490. The total score on the Y-OQ had a remarkably high internal consistency estimate of .97 across all three samples. (Burlingame et al, 1996).

Validity of the Y-OQ was studied using the relationship between the Y-OQ total and subscale scores by comparing parallel subscales from the Child Behavioral Checklist (Achenbach, 1991) and the Connors Parent Rating Scale. An "adequate" convergent validity was discovered (Burlingame et al, 1996). A second validity sample of 80 inpatients was collected to examine the relationship between the Child Behavioral Checklist and relevant Y-OQ subscales. A strong relationship (.84) was found between the Total Y-OQ score and its counterpart on the CBCL. (Burlingame et al, 1996).

Clinically Meaningful Change as measured by the Y-OQ is defined as falling into a category of either: improved or recovered. It is based upon comparisons of inpatient, residential and outpatient therapies by Burlingame et al (1996). If a client's score moves more than 13 points into a range lower than 46 after treatment, they can be labeled as recovered. If a client's score has moved thirteen or more points but does not reach the range of normal functioning indicated by a score of 46 or lower, the client can be labeled as improved. These

two criteria will be used in this study to relate the change in parent assessment from admission to discharge as measured by the Y-OQ.

Qualitative data was obtained at discharge in the form of a parent questionnaire. In the last decade marriage and family therapy researchers have become increasingly interested in qualitative approaches to inquiry (Gehart, Ratliff, & Randall, 2001). Moon, Dillon, and Sprenkle (1990) encouraged the development of qualitative research because it is “isomorphic to the cybernetic foundations of family therapy”. Reliability and validity of the questionnaires was obtained via the use of “low-interference descriptors” which typically involves the inclusion of direct quotes from persons to support themes reported in the results. Low-interference descriptors allow the reader to better assess the trustworthiness of the research report (Lincoln & Guba, 1985). Case examples from five EAFT sessions will be presented along with direct quotes from the parent survey and pre and post test total scores on the Y-OQ in order to give the reader a more complete picture and “flavor” of the work from a phenomenological point of view. A survey of parent and guardian responses to open-ended questions was collected at the time of discharge from treatment in EAFT and was analyzed for content of themes. The questions were carefully worded to avoid leading the parent’s responses, and were ordered in such a way as to maximize thoughtfulness of response. The questions from the survey are as follows:

1. What benefit (if any) did you and your family receive from participating in the horse-assisted family sessions?

2. What are some of the specific differences (aside from the addition of horses to the sessions) that you noticed between regular office-based therapy and the horse-assisted approach?
3. Describe what the horses may have taught you about yourself and/or your family members.
4. Please write any comments that you would like the program staff to read, or for them to pass on to other professionals and clients who may be interested in trying a horse-assisted approach to family therapy.

The questions were carefully worded in order to facilitate understanding by a diverse population of clients. The word *horse* was deliberately substituted for the word *equine* as an attempt to avoid any misinterpretation by a parent with diminished vocabulary

RESULTS

Client Characteristics

Client gender of the 11 youths who completed participation in this study was represented by 7 males and 4 females who ranged in ages from 8-17 years with the mean age being 12.5 years.

Clients were diagnosed prior to being referred for treatment with the following *primary* diagnosis: Behavioral Disorders (4), Mood Disorders (3) and Psychotic Disorders (4). Substance abuse as a *secondary* diagnosis was present in four of the clients.

All of the clients had received previous outpatient psychotherapy services. Four of the youth had received prior treatment as in-patients at the state psychiatric hospital.

Two of the adolescents were on parole with the division of youth corrections and two others were on formal probation with the division of juvenile justice.

Treatment Outcome

The results indicated that 10 out of 11 of the EAFT clients participating in the study had reduced symptoms as measured by the parent assessments using the Y-OQ. Parent assessment of the identified child and adolescent clients decreased from a mean total score of 71.5 at admission to 47.6 at discharge. An average decrease of 23.9 points on total scores occurred.

The Y-OQ manual suggests that if a client's score "decreases by 13 points or more, they have attained a significant amount of symptom reduction" (Burlingame et al., 1996, p. 7). Average score reductions on the Y-OQ indicate score differences greater than 13, suggesting a real reduction in symptoms. Nine of the eleven clients who completed this study reduced their composite scores by at least 13 points.

A reduction of total points by at least 13 with a score that remains above the cutoff of 46 points indicates clinically significant change with a label of "improved" at discharge. Six clients out of the eleven clients attained an "improved" status.

A reduction of total points by at least 13 with a score that drops below the cutoff of 46 points indicates clinically significant change with a label of "recovered" at discharge. Three clients out of the eleven clients attained a "recovered" status.

A score that fails to drop at least 13 points between admission and discharge is indicative of a lack of clinically significant change. Two out of the eleven failed to achieve a 13 point drop.

Eighty-two percent of the clients evidenced clinically significant change from admission to discharge with 54% of the clients falling within the “improved” category, 27% falling within the “recovered” category, and 18% showing no improvement from admission to discharge.

Differences in the mean scores of the six content areas reveal that the Reliability of Change Index was attained in two of the subscale indices. The mean score reduction on the Intrapersonal Distress index was 8.1, which narrowly exceeded the RCI of 8 for that subscale. The mean score reduction on the Social Problems subscale was 5.2 and the RCI index is 5.0. Changes in these scales may be an important finding since clinically significant change in interpersonal distress of clients may be indicative of a decrease in family stress. A clinically significant difference in the mean scores on the Social Problems scale is important due to the fact that this scale measures problems with truancy, running away from home, and substance abuse which were presenting problems most commonly associated with the primary diagnosis of Conduct Disorder. The Interpersonal Relations scale is an indicator of the client’s interactions with family members and peers. The lack of mean scores dropping to clinically significant cutoff levels needs to be looked at more closely; use of a measurement of total family functioning may be an important consideration in future studies.

A review of the responses to the parent survey questions indicates the presence of several themes: a) the counseling was effective in reaching the goals set forth at intake b) the use of horses created a non-clinical atmosphere which was more relaxing to the clients c) the parents report therapeutic benefits from using horses as assistants in psychotherapy d.) the adolescent or child looked forward to attending the sessions. There

was one single negative response to the EAFT questionnaire at follow up which stated “horses are dirty.” The following statements are taken directly from client survey forms and reflect the relationship of the respondent to the client in parenthesis:

“My son accomplished goals and was ecstatic about it.” (mother)

“Horses react to us from the inside out and teach us when to approach and when to push away.” (mother)

“My kids were calm and quiet when out here and taught us all patience.” (mother)

“My wife feels closer to me.” (father)

“Horses are nice as a metaphor for relationships.” (father)

“I feel comfortable with it all” (father)

“Something enjoyable to look forward to.” (mother)

“It relaxes us.” (mother)

“The horses taught us to be calm.” (mother)

“The family learned that mom and dad work against each other” (mother)

“This is a more down to earth and more relaxed way to do therapy.” (mother)

“I learned [from the horses] that I have a very hard time following through with my kids.” (mother)

“This is the best counseling I have ever had and it made me look at myself and not just my kids.” (mother)

“This is the only counseling that has worked in over ten years of seeking help for our daughter.” (mother)

Several case examples will be presented along with the total Y-OQ scores for pre and post EAFT. Additionally, comments from the parent survey will be

shown. This will give the reader a sense of the therapy activities as they apply to the therapy team's strategies of intervention, as well as show the quantitative and qualitative results from the treatment.

Case Examples

Five family sessions were chosen in order to help the reader obtain a better sense of how EAFT works in "real life." The sessions were selected due to the following criteria: a) how closely did the session activity match the structural need for change within the family? b) Did the use of the horse create an opportunity for metaphorical communication about family dynamics, and c) Was it apparent to the therapy team that significant change took place within the session? The case examples are intended to provide readers with a sense of the phenomenon of EAFT as practiced at the Journey Home program. Background information for each case has been presented in a vague manner in order to protect the confidentiality of the families involved in the study.

Case Example 1

This family was referred for equine-assisted family therapy by the assessment team at the Family Resource Center. The family is comprised of a mother and father who are each on their second marriage. The mother has two daughters from a previous marriage, ages 14 and 16. The father has two children from a previous marriage, a son 12 and a daughter 11. The parents have primary residential custody of all four children. The parents agreed to take custody as a

foster placement for two children ages 9 and 13. The family was referred for family therapy by the local community mental health agency due to concerns over the complexity of the current family situation and the resulting stress on each of its members. The father's son is reportedly in constant conflict with each of the other children, has had significant behavioral problems in school, and is at risk for out of home placement. The 13 year old female foster child is becoming increasingly withdrawn and had begun to evidence symptoms of depression. The mother and father have identified the two foster children and the son of the father as the identified clients for participation in the research study. The parents report that they have an excellent marriage and deny the presence of any difficulties. They describe the household as "chaotic," "tense," and "confusing" due to the conflict at the sibling level. Their goals for treatment are: 1) to assist the foster children in their process of assimilation into the family and 2) to assist the father's boy in reducing his oppositional and defiant behavior. Each of the identified youth had been seen for individual therapy for a period of at least three months prior to being referred to the EAFT program. Individual therapy sessions were suspended until the family was discharged from EAFT and returned to the referring agency for follow-up.

Discussions between the author and his equine-professional/co-therapist revealed that they each had a hypothesis that the family was chaotic due to a lack of unity of parenting styles. The therapy team agreed that the best systemic intervention to test this hypothesis was to engage all of the members of the family

in an exercise entitled “life’s little obstacles,” which was created by Greg Kersten and Lynn Thomas of EAGALA.

The therapy team greeted the family for the second session and explained that they would be engaged in an activity with horses that would give the therapists a chance to observe how they interact as a family. The family members were given a safety orientation with regards to working in close proximity to horses and then were given the rules for the activity. The activity involves no talking or discussion among family members and the goal is to get a horse to cross over an obstacle that is created by placing the ends of a wooden 2x4 on top of two grain buckets that are turned upside down as supports. The obstacle is placed in the center of the riding arena and participants are instructed that they cannot talk to one another or touch the horse during the course of this exercise. The participants are encouraged to consider “the many possibilities available outside of the restrictions that are placed on them.” The description of the activity in this case example is intentionally lacking in detail in order to protect the proprietary rights of EAGALA.

The family was lacking any organization or leadership by the parents. The parents alternated in their unsuccessful attempts to motivate the horse to move towards the obstacle, and the children mostly stood and watched the parents take turns trying to move the horse. The horse appeared to be unaffected by the attempts of the parents and actually was observed to fall asleep during parts of the session. The parents never turned to the therapy team for guidance and the

session was ended on time. The family agreed to attend at their regular time the following week.

The family arrived on time for the second session and entered the round pen to continue the activity from the previous session. The therapy team observed that the kids were evidencing reluctance to participate and were looking at the ground and fidgeting with articles of clothing. The mother and father resumed their same strategy of alternating with their failed attempts at getting the horse to move. The family ran out of time without completing the task.

The therapy team allowed the family members a few minutes of time to process their reaction to the exercise and asked the parents to consider possible solutions to the exercise over the week until the next attempt. The therapists reminded the family that “solutions sometimes take time” and that this was a task that many families before them had accomplished once they developed a solution.

The family arrived on time for their third session and appeared tense and reluctant to enter the arena. The therapy team encouraged them to make a third attempt as they had agreed to do in the intake meeting. The family entered the arena and evidenced the exact same pattern of interaction. The parents worked as individuals, and in an alternating fashion, without even making eye contact. The kids were isolated, bored looking, and completely uninvolved in creating a solution to the task.

The parents eventually asked the therapy team for assistance after approximately 30 minutes of repetitive failures. The therapy team suggested that the parents “consider thinking outside of the box” as a solution to the problem at

hand. The father suddenly began to move the grain buckets to the outer edge of the arena and placed the plank of wood so that it was perpendicular to, and abutted against the arena railing. He energetically motioned for the family members to join him in waving, making loud noises, and even using articles of clothing to motivate the horse away from the center of the arena and towards the railing near the obstacle. Within three minutes, the family succeeded in getting the horse to step over the obstacle. The family, including the children, celebrated by giving hugs and “high fives” to one another.

During a brief moment of verbal processing after the session, the father was asked to describe how he had decided on his plan. He stated that he had conceptualized his plan before the onset of the first therapy session but had refrained from attempting to implement it because of his fears of being “vetoed” by his wife. His wife began to cry and stated that she wasn’t aware her husband had kept his ideas to himself during this three weeks. She was directed by the therapy team to directly inquire further into her husband’s thoughts on this matter. The husband was asked to direct his comments directly to his wife while the kids and the therapy team observed. He informed his wife that he believed that his ideas would be considered “illegal” or “against the rules” by his wife and therefore he kept them to himself. The parents were given the assignment to discuss this process further “in the privacy of your bedroom” between this and the next session.

The family had to cancel the following week due to unexpected travel plans out of town. The family attended their next session two weeks later. The

family arrived on time for their appointment and the parents walked to the session holding hands while the children appeared to be more energetic and enthusiastic about attending. The therapy team inquired into the past two weeks with special interest regarding the parents' completion of the assignment. The couple responded that they had completely changed their strategy of parenting to form a "team" with rules and consequences. The fourth session was used as an opportunity for the parents to gain closure on their process of unification as a parenting team and to present the details of their new style to the children. The Y-OQ and parental survey was administered at this time due to the parents' decision to "wait and see if further sessions are needed." It has been three months since discharge and no further follow-up sessions have been necessary at the time of this report.

The therapy team apparently was correct in their initial assessment that the children in this family were becoming symptomatic in response to the chaos in the family. The disorganization was likely the result of the addition of two foster children and the lack of clear rules and leadership by the marital dyad. In spite of the parent's verbal report and appearance of being a partnership, the exercise proved otherwise. The horse was seen as a metaphor of the defiance of the identified patients in this family and provided immediate and consistent feedback to the family's behaviors. The horse's brief lapse into sleep could be construed as a metaphor of the boredom and apathy that entered the marriage in response to the hopelessness of the recent family problems and lack of response to treatment efforts. The other metaphor of the sleeping horse is the unresponsiveness of the

children to the previous ineffectiveness of the parents' ability to function as an executive pair.

The Y-OQ scores for the three identified patients in this family are as follows: 1) foster girl, age 13: pre-test (56), post test (38), an 18 point drop in total scores with a clinical significance of "recovered." 2) foster boy, age 9: pre-test (32), post test (16), a drop of 16 points in total scores with a clinical significance of "improved" 3) father's son, age 13: pre-test (103), post test (70), a 33 point drop in total scores with a clinical significance of "improved". The son, age 13, showed clinically significant changes in subscale scores as indicated by reaching the cutoff RCI on the Intrapersonal Distress scale and the Interpersonal Relations scales.

The parent questionnaire contained the following comment "we were frustrated until we understood that the horse was just like our kids and we better do something to solve this problem" "My wife and I think outside the box [about solutions] now."

Case Example 2

This family was referred to the EAFT program after an unsuccessful attempt at ameliorating the presenting problems of their children in traditional family therapy. The parents alleged difficulties with their 10 year-old son. He was reportedly oppositional and defiant, combative with his sister, and isolative from the family. The mother's particular concern was the boy's escalating pattern of conflict with the father. The 8 year-old daughter was observed to be very "clingy" with the mother and was virtually mute during the intake. The parents

identified the boy as the primary recipient of care, but wanted the daughter to be more verbal and less dependent on the mother. Both of the children are home schooled and the family resides in a remote area many miles from town. The parents stated that previous outpatient family therapy attempts failed due to an inability of the therapist to engage the son.

The therapy team observed that the mother was the spokesperson for the marital dyad and that the father seemed passive and detached. The boy was fidgety, interrupted the interviewers frequently, and seemed irritable. The daughter avoided eye contact and remained in physical contact with the mother for the duration of the intake. The mother stated that she was the parent that primarily interacted with the kids and disciplined them when it was necessary. A family genogram was constructed during the initial session that depicted a disengaged position between the mother and father and an over-involvement of the mother with her children. A strongly enmeshed relationship between the mother and daughter was depicted. Lines of conflict were drawn from the boy to each of the family members. A structural hypothesis was that the mother had crossed a generational boundary and had become involved in an inappropriate coalition with her children. The parents denied having any marital problems or conflict of any kind. The mother and father admitted that they had great difficulties with the disciplining of their children and that they were quite passive in this regard. The son was observed to blurt out the name of a restaurant that he wanted to visit for lunch following the session. The parents looked at one another and immediately agreed to the son's selection of eateries.

The therapy team discussed the hypothesis that the mother and father may not be receptive to a direct approach that suggested setting limits on the children or unification of their parenting styles. The parent's lack of follow-through with the suggestions of the previous therapist indicated a potential for a defiant response to a direct approach. It was decided that a very mild paradoxical intervention would be utilized in the first half of the initial equine session. The paradox was intended to expand the theme of inappropriate empowerment of the 8 and 10- year- old children. The second portion of the session was intended to restructure the family so that the parents were functioning as an executive pair. The horses were utilized to provide a metaphor of teamwork and power within a family system.

Deb Williams conceived of an equine-assisted family therapy exercise that she has titled "the team." Deb harnesses her team of two 1800 pound Belgian draft horses together as if she was preparing to hitch them to the Journey Home stagecoach. The idea of the exercise is that each of the participants on the ground controls one rein, and therefore one horse, and must coordinate efforts with their partner (similar to functioning as left and right hands) in order to get the team of horses to reflect that coordination in their movements. The two horses are very experienced at being driven as a team and are highly responsive to clear directives being communicated to them through their reins. The objective of the exercise is to drive the horses in a slalom pattern around orange cones placed at fixed intervals in a straight line in the arena. Deb demonstrates basic techniques of driving from the ground, and then shows the participants how well the team

responds to cues through the reins. The exercise developed for this session was to have each parent ride bareback on separate draft horses as the two children drive the team by walking behind the horses. The son balked at participating initially, and the parents were empowered to make a decision as to what course of action to take. They decided not to force him to participate and encourage the 8-year-old daughter to drive the team with Deb as her partner. A final directive was issued by the therapy team; “the parents can talk with each other and not the kids, the kids can talk with each other and not to the parents, and each [dyad] can communicate directly with the treatment team.” The rules of the exercise form an intervention designed to mark appropriate boundaries between subsets of the family.

The result of the enactment phase of the session was that the boy isolated away from the family in a corner of the arena, while the girl sobbed continuously as she attempted to drive the team with Deb. The boy, after a period of isolation, came to join his sister and he replaced Deb. He was observed to be anxious as evidenced by his continued twisting of the reins. The children, although attempting to work as a team, were unsuccessful at the task. It was rather apparent that they were uncomfortable in the role of driving the team.

The parents were asked to dismount from the horses and switch places with the children and were then given the opportunity to attempt the task. Initially, the mother tried to engage the therapy team in discussion related to her desire to gain insight into her son and daughter’s behavior during the recent

exercise. The therapy team respectfully redirected her to the exercise by stating that discussion would follow completion of the task.

The mother and father succeeded in driving the horses through the cones while the daughter rode bareback on one of the Belgians, and the son watched from the ground. The parents began to laugh together at one point as the horses' movements caused the parents to collide during a turn. The session was video taped and the family was invited to come inside to view segments of the session with the treatment team.

During the viewing of the tape, the mother sat on the floor at the father's feet, while the children sat near the father on the couch. The mother looked up at the father and stated "I tend to bowl you over", referring to her powerful position in the family. The family was invited to return for another session in one week.

The family returned for a second session that had to be cancelled due to a thunderstorm in progress. The father and mother were asked to describe any changes that occurred in the week following the first session. As the mother was describing events that took place, the boy was observed at play with the father. He was playfully grappling with the father and then hugging him with apparent affection. The mother described an incident that took place one evening in the past week whereby she and the children were headed out to conduct some chores on their property and the son invited the father to join them. The father initially said no, and then heard the son say "come on dad, it's more fun when you come with us" The father responded to his son's request and joined the family. The mother described the boy as having been noticeably less defiant and more

cooperative during the previous week. The therapy team hypothesized that the boys symptomatic isolation and conflict with the family was symbolic of the isolation and covert conflict that were present at the marital level. The family was unable to attend a session the following week due to the husband making arrangements for the kids to stay at his mother's home while he and his wife planned to take "a romantic weekend away". Three subsequent equine sessions ensued over a two-month period that continued to target the fortification of the boundaries around the marital dyad. The children were engaged in a session without the parents in an effort to create increased cooperation in their relationship.

The results of the Y-OQ tests are as follows: The 10 year -old boy had a pre-test total of 71 and a post-test total of 41 for a reduction in scores of 30 points. His post-test score was below the 46 point cutoff which labels his change as clinically significant and "recovered." The 8 year-old girl had a pre-test score of 66 and a post- test total of 50 for a reduction in scores by 16 points. Her post- test score was labeled as clinically significant and "improved".

The results of the parent survey revealed a single negative comment, "horses are dirty" as well as several positive comments as follows: "my wife feels closer to me", "fun being with horses and outside", "didn't feel like therapy", "horses are a metaphor for relationship work" and "we feel comfortable with it all".

Case Example 3

This family was referred by the Department of Social Services Child Welfare Team for an assessment and family therapy. The identified patient, a 17 year-old female, had recently returned from a series of five or more out of home placements and had an extensive history of runaway behavior. The client had been in ten separate treatment scenarios represented by the full spectrum of available services including residential placement. The father's work requires him to be away from home for several days each week, and the stepmother home schools the client. The girl's presenting problems at intake were reported by the parents as: defiance to home rules, irritability, depression, and laziness. The chief concern during the intake meeting was whether the daughter would run away in response to the parents setting of limits.

The initial session revealed willingness on the part of each family member with regards to EAFT. The parents each had grown up around horses and had pleasant childhood memories about horseback riding. The daughter, although limited in her horse experience, was very interested in horses and eager to be involved in the therapy.

The therapy team reviewed the intake material, including the genogram that was constructed at intake, and decided to plan a two-stage session for the second meeting. The structure of the family appeared to the therapists as having an over-involvement (even though it was conflicted) between the stepmother and stepdaughter, with a peripheral parenting role taken by the father. A family lifecycle consideration was that the 17 year-old, being an only child, was

preparing to turn 18 and had plans to live independently. A goal of treatment was to assist the girl in leaving home with the blessings of her parents and in a safe and appropriate manner. The therapy team asked the girl what she had learned during her runaway episodes. She revealed a desire to use her survival skills, acquired during her elopements, by applying them in a healthy manner. She was preparing to leave home and wanted her parent's blessings.

The first phase of the second session involved the parents watching the client being introduced to Sam, Journey Home's wild mustang. Sam is from a herd of wild horses that frequent a large ranch surrounding the Journey Home property. Sam was ejected from his herd and his story reflects metaphors that are useful to runaway teens. Sam is an invaluable resource for participants due to the "purity of his behaviors that have not been watered down by domestication" (Williams, 2002). The therapeutic intervention was to have the girl attempt to catch and halter Sam in a sixty foot round pen while the equine professional assisted her. The parents watched from outside of the enclosure with the therapist. The round pen was used to symbolize the marking of boundaries around the soon-to-be independent adolescent, while the parents were united outside of the boundary. The horse was used as a metaphor for the "wildness" of the daughter as evidenced by her series of runaway episodes.

The identified patient was frustrated by Sam's elusiveness during the first session and was unable to halter him. However, she did succeed in touching him on the neck a few times. Her comment was "this horse is a lot like me, I see why my parents got so mad at me when they couldn't catch me."

The second phase of the second session involved taking the parents into the round pen with the equine professional while the girl remained on the outside with the therapist. The parents were given an opportunity to take turns longeing (attaching a long line to the horse's halter and having the horse move in a large circle around the handler) a horse while the spouse rides bareback. This exercise was chosen due to the parent's fond memories of horseback riding and perceived need to spend more time playing together as a preparation for adjusting to an empty nest. The parents were observed to laugh and play together during the exercise while the daughter seemed to enjoy watching their interaction.

The second part of the second session involved a return to assisting the girl in her efforts at catching and haltering Sam. The entire session was dedicated to this process as the parents watched from outside the pen with the therapist. The daughter showed remarkable persistence and modified her approach and avoidance behavior in accordance to the equine professional's suggestions until she was finally successful in haltering Sam. The family celebrated the achievement with applause by the parents and hugs for the girl. The parents reported two weeks later during the third and final session that the girl had improved in her presenting symptoms, and they were administered the Y-OQ and the questionnaire. The girl was placed in the growth and learning aftercare groups and she demonstrated an affinity for working with horses. She left home with the blessings of her parents the week that she turned 18, and no follow-up sessions have been requested in the three months that have elapsed.

The metaphor of the horses in these sessions was to communicate to this family that wildness is not synonymous with badness and such behavior can be reframed as free-spirited. The horses were intended to be a metaphor of returning to the playful days of courtship for the parents as they prepared to become a dyad once again.

The intake score on the Y-OQ for the girl was 102 and the discharge scoring was 51 points. A reduction of 51 points indicates a clinical significance of improvement. The parents' survey had the following comments: "This is the only counseling that has helped our daughter and our family in over ten different attempts." "My husband and I enjoyed the horses so much as we returned to feelings of calm and joy that we hadn't experienced in years."

The previous three case examples are representations of successes in this study. The following two case examples depict scenarios that are less consistent with regards to a successful outcome. It is the intent of the author to give the reader a balanced impression of the phenomenological aspects of this study.

Case Example 4

This family was referred by the Department of Social Services for EAFT as an adjunct to the treatment they were receiving at the community mental health center.

The intake revealed that the 16 and 17 year-old boys had been unresponsive to limits set in the home, and were suspected of substance abuse. Both of the boys were diagnosed as suffering from psychotic disorders and were

taking anti-psychotic medications as prescribed by the psychiatrist at the mental health center. The parents were divorced for five years and the mother has residential custody of her sons. The father maintains frequent contact with the sons and employs one of the boys in his business. The parents stated that the boys are oppositional and defiant to the mother. The parents wanted guidance regarding how to effectively parent the sons.

Life's little obstacles was used as an assessment session in the second meeting. Four horses were put in the arena and the instructions to the family were for them to get a specific horse over the obstacle. The therapy team observed that the family divided into two teams during the exercise; the father and the son he employs in his business as one team and the mother and the other son made up a second team. The older sister, who lives outside of the home, seemed to operate independently from each team during the exercise. At one point the therapy team observed that the mother and father had identified two different horses for the exercise and were operating without any coordination of effort. The family was unsuccessful in their efforts to get the identified horse over the obstacle and the therapy team reflected their observations to the family. The therapy team asked the father if he thought that his ex-wife needed his help in parenting the boys. The father stated that he believed she did, but that his help was unwelcome. The wife was asked to respond to his statements. She stated that she did want his help at this time. The goal of therapy was reframed as an opportunity for the parents to work together in order to assist their sons in leaving home successfully. A follow-up session was scheduled for the following week.

The therapy team decided to use the exercise labeled as “the team” in order to assist the family to gain an experiential understanding the power of the coalition created by the boys and to assist the parents in becoming a united, executive pair. The Belgian draft horses were harnessed and hitched together. The parents were invited to ride bareback while the boys took a turn at driving the team through the cones.

The boys initially began to argue and then very quickly assimilated the necessary skills. They communicated effectively and had a successful experience at driving the team through the obstacle course. The parents seemed to enjoy the experience of riding the horses. The boys and the parents were asked to switch places. The parents were then given the opportunity to drive the team while the boys were passengers on the horses. The parents did not communicate verbally or make eye contact during the exercise. Within seconds of beginning the driving portion of the exercise, the team of horses became confused and separated from one another. The result was a “horse wreck” that ended with the horses facing head to head in an oppositional posture and pulling away from each other. The force of the struggle snapped the bit in one of the horse’s mouths. The therapy team intervened in order to ensure safety and had the boys dismount immediately.

The session was processed with the family. The boys said that they usually worked well as a team and it was easy for them to get what they wanted from mom and dad. The parents seemed embarrassed, but stated their willingness to return to the exercise the following week for more practice at being a united executive pair.

The horses were used as a metaphor for the boys' powerful coalition in the family and the disorganization and oppositional relationship of the parents. Additionally, the therapy team hypothesized that the mother was involved in a cross-generational coalition with her sons against her husband. The family failed to attend future sessions and was discharged back to the community mental health center. It appeared to the therapy team that the parents were not willing or able to address the need for making changes in their relationship with one another as a way of achieving their stated goals of helping their sons to change their symptomatic behaviors.

The Y-OQ scores were as follows: intake score for the 16 year-old boy was 114, and for the 17 year-old, 63. Discharge scores were 81 and 58 respectively, and reveal that one son had a 33 point drop (improved) and the other a drop of 5 points (no improvement). It is interesting to note that the son with the 33 point drop was aligned with the mother while the son with a drop of 5 points was aligned with the father. This reflects a possibility that the mother may have filled out the follow-up data without the father due to her closer alliance with her younger son.

The following comments were written on the survey in what appears to be the mother's handwriting: "The family learned that mom and dad work against each other and the kids know this and use it to their benefit." "The therapy was more down to earth than going to the office and it doesn't feel like you are going to a doctor, more relaxed." "The horses showed me that I have a very hard time following through with the rules and that my children will follow my rules if I

keep a firm stand.” “This is the best counseling I have ever had and it made me look at myself and my family.”

Case Example 5

This family was referred to Journey Home for EAFT sessions as an adjunct to individual therapy and medication management being provided by the community mental health center in Walsenburg, CO. The family is comprised of a single mother, a 16 year –old son and a 14 year-old daughter. The son and daughter had recently been diagnosed with psychotic disorders. Each of the siblings was being treated with anti-psychotic medication. The family members were cooperative during the intake session and identified a single goal for treatment; “ we want to be able to communicate better with one another”. The mother denied having any difficulties with defiance or cooperation by the adolescents.

The therapy team hypothesized that the family operated without an executive member in charge and appeared to be comprised of three siblings with equal power. The therapeutic goal was to test the hypothesis and then design interventions that would allow the mother to be elevated to the level of executive in the family. The mother appeared to be involved in an inappropriate cross-generational coalition with her son and daughter.

The initial session revealed that the son and daughter were eager to interact with the horses, and they did so in a very gentle manner. The son was observed to hug one of the horses as he left the initial session. All three family

members exhibited such flat affect that the boy's spontaneous hugging of the horse was the only cue to the therapy team that the family enjoyed the time with the horses.

The second session was designed to elevate the mother to equal status with the therapy team as a supervisor of her adolescents. The mother was asked to pick the horses for her son and daughter and to assist them in catching and haltering the horses. The mother was observed to ask the boy and the girl which horses they wanted to interact with prior to providing her assistance. The mother was very passive in her manner of handling the horses and struggled to direct her children in being assertive in leading the horses. The absence of speech in this family was noteworthy. The second session was comprised solely of grooming the horses and observing the interactions of the family members with each other and the horses.

The third session involved teaching a family member to longe a horse in the round pen while one member of the family was mounted on the horses' back. The mother was given instructions in longeing, and the adolescents took turns being on horseback. This was the first time that the therapy team observed each of the family members smiling.

The family returned for a fourth session and, the mother reported no difficulties with her children during the week. The therapy team made the rather rare decision to continue working with this family using horseback activities due to the visible affective response that each family member displayed while being longed. Three more sessions were held for a total of seven visits. The family

stated that they had reached their treatment objectives of communicating more effectively and the family was discharged back to the mental health center at that time.

The horses were used as a metaphor of spontaneous behavior, mobility, freedom and power. The horses were also utilized to provide each family member with immediate feedback regarding their level of assertiveness and clarity of nonverbal communication. The nonverbal language of horses seemed to accommodate to the families' style of communication.

The mother filled out the Y-OQ and the client surveys at the end of the seventh visit. The son's scores are as follows: intake score 5, discharge score 20, yielding a 15 point increase in score reflecting a degrading of functioning within the "recovered" level of testing. The daughter's scores are: 66 at intake and 17 at discharge, which indicate a 49 point drop into the "recovered" category.

The mother wrote the following comments on the client survey: "It is giving the three of us something in common to talk about." "It gives us something enjoyable to look forward to.", "We get to be outdoors and with horses and it is comfortable, not on edge", "Nobody is judging us on what we say or our movements", "we aren't asked a lot of questions", "the horses are calm and not scary", "The therapy team put me at ease" and "it is so relaxing and comfortable there", "a great program and I recommend it for other families."

The daughter and son have requested enrollment in the growth and learning groups for follow-up care.

Comparison of Results to Other Y-OQ Studies

The Y-OQ manual (Burlingame et al., 1996) and two studies reported in the literature of in-home, family centered psychiatric treatment (Mosier et al., 2001) and a partial-day treatment program for children (Robinson, 2000) studied the effects of treatment as reported by parent assessment using the Y-OQ. Table 1 (page 57) shows that the average admission score for this study assessed by parents (71.5) is closest to the outpatient scores reported by Burlingame (1996). The study of EAFT treatment showed greater score reductions than non-EAFT treatment identified by Robinson, and showed lower discharge scores by an average of 30 points in the Robinson study and 27 points in the Mosier study.

Table 1. Studies to compare Y-OQ outcome assessments including type of treatment, number of study participants, age range, length, average admission score, and percent improved and recovered.

Study	Treatment	Assessment	N	Age Range	Treatment Length	Ave. Admit	Ave. Disch.	Ave. Diff.
Burlingame et al. (1996)	Outpatient	Y-OQ parent	342	4-17	N/A	79	N/A	N/A
Burlingame et al. (1996)	Inpatient	Y-OQ parent	174	4-17	N/A	100	N/A	N/A
Mosier et al. (2001)	In-Home Family Treatment	Y-OQ parent	104	4-17	8-weeks	106.53	75.17	31.36
Robinson (2000)	Partial Day-Treatment	Y-OQ parent	215	5-13	15-weeks	94.12	77.6	16.96
Russell (2001)	OBH Wilderness Residential	Y-OQ parent	338	13-17	5-weeks	100.19	48.55	51.64
Mann (2002)	EAFT/ Outpatient	Y-OQ parent	11	8-17	5 sessions	71.5	47.6	23.9

Directions for Further Research

Findings from this study indicate that participating in EAFT treatment reduced behavioral and emotional symptoms of clients immediately following treatment as measured by parental report according to the Youth Outcome Questionnaire (Y-OQ). Findings from the parental survey indicate that parents identified several common themes in response to the treatment: 1) the treatment was effective in meeting the goals that they established at intake 2) the use of horses contributed to personal growth and development in the therapeutic intervention, and 3) the therapy context was more relaxed and comfortable as compared to traditional outpatient treatment.

There are no studies of equine-assisted psychotherapy that have evaluated the long-term effects of this method of treatment. Follow-up of this study at the one-year period after discharge should be conducted using the Y-OQ parent form in order to determine whether scores dropped further, remained the same, or increased in conjunction with a return to the presenting symptoms.

The author recommends that this study be conducted in EAFT programs in other geographic locations and with larger samples of more diverse client populations. The addition of a measurement tool such as The Family Assessment Measure III (FAM III) (Steinhauer, Skinner, & Santa-Barbara, 1985) would be helpful in identifying more specific changes occurring within the family. The FAM III is a 115-item assessment which views families from three perspectives. First, is the General Scale focusing on the health-pathology of the family from a systems viewpoint. Second is the Dyadic Relationship Scale focusing on the relationships among specific pairs within the family. Third, is the Self-Rating Scale focusing on the individual's perception of his/her

functioning within the family (Forman, B.D., Hagan, B.J., 1984). The author believes that the administration of the FAM III at admission, discharge and then at one-year follow up intervals would provide an excellent resource for the investigator in determining specific areas of change within the family.

A key question to address is whether the model of equine-assisted family therapy proposed in this study is readily transferable to other practitioners in the field of equine-assisted psychotherapy. The author and his equine-professional/ co-therapist are currently engaged in studying the effectiveness of a two-day workshop designed to teach the application of structural and strategic family systems concepts to EAGALA certified equine-assisted psychotherapy teams. The Family Therapy Assessment Exercise (FTAE) is administered prior to the workshop and immediately upon completion in order to measure each participant's acquisition of observational and conceptual skills within a structural and strategic family therapy model (Breunlin et al., 1983). The Personal Orientation Inventory is administered as a pre-test and post- test measure to determine if the training has any impact on the participant's level of self-actualization (Shostrom, 1972). Finally, a post-workshop survey is administered in order to obtain additional information regarding the experiences reported by the participants of the workshop. The study is based upon the hypothesis that the training is an effective method for teaching structural and strategic family therapy concepts and that equine-professionals can acquire conceptual and observational skills in structural and strategic therapy at a level equal to, or greater than, practicing licensed therapists without formal training in these models of family therapy. The study promises to answer key questions regarding the use of the

EAGALA organization as a vehicle for the replication of the EAFT model proposed in this paper.

An important piece of the Journey Home program is the recent addition of the equine-assisted growth and learning groups that are utilized for aftercare maintenance of clients who are discharged from family treatment and for clients who's families will not, or cannot attend therapy. Research should be conducted that studies the effectiveness of these groups in helping the participants to make behavioral changes as reflected by pre-test and post-test scores with the Y-OQ instrument.

Summary and Conclusions

Conclusions from this study are:

1. The clients enrolling in the EAFT program during this study were 64% male and 36% female and between the ages of 9 to 17.
2. Clients entered treatment with a variety of disruptive behavioral, mood and psychotic disorders as their primary diagnosis. The most frequent disorders were behavioral disorders such as Oppositional Defiant, Attention Deficit, and Conduct Disorder. Substance disorders were listed as secondary problems for 45% of the clients identified for participation in the study by the parents.
3. Each client had utilized outpatient services, while 45% of the clients had utilized inpatient psychiatric services prior to enrollment in the EAFT program.
4. On average clients showed a statistically significant reduction in presenting symptoms from admission to discharge from EAFT treatment, which averaged 5 family sessions in length for an average cost of \$800 per family.

5. Client scores on the Y-OQ at admission averaged 71.5 and average client scores at discharge were 47.6, indicating an average score reduction of 23.9 points.
6. Client scores on the subscale indices for Intrapersonal Distress dropped an average of 8.1 points from pre-testing to post-testing, which is indicative of clinically significant improvements on that rating scale according to the Reliable Change Index. Average scores on the index for Social Problems dropped by 5.2 points, which indicates clinically significant improvements on that scale according to the Reliable Change Index.
7. Conduct Disorders demonstrated the most clinically significant improvement to EAFT as evidenced by an average drop of 36 points in total score on the Y-OQ. Mood Disorders showed an average reduction of 20 points, and Psychotic Disorders dropped by 18 points. All three diagnostic categories demonstrated clinically significant improvement according to the Y-OQ averaging of total scores at pre-test and post-test.
8. This study showed greater score reductions in total Y-OQ scores than the study which measured effectiveness of Partial Day Treatment (Robinson, 2000) and a smaller reduction in scores than In-Home Family Treatment (Mosier et al., 2001) or Wilderness Therapy Treatment (Russell, 2001).
9. This study demonstrates that EAFT is cost-effective in the treatment of high-risk youth (average cost of \$800 per family) at a fraction of the cost of Wilderness Treatment programs (average cost of \$5,738) (Russell, 2001), Inpatient programs (average cost between \$5,000 and \$50,000) and Day Treatment programs (average cost of \$5,500) (Bryce, 1982).

10. One client, out of the eleven who participated in the study, required out-of-home placement for a period of stabilization as a psychiatric inpatient. Ninety percent of the participants remained in their homes following participation in the EAFT treatment.
11. Eighty-two percent (82%) of clients in the EAFT study demonstrated clinically significant improvement from treatment from an average of 5 sessions. Each of the clients had failed to make progress in previous conventional methods of therapy according to their parents.

In conclusion, this study indicates that participation in EAFT led to important reductions in the severity of behavioral and emotional symptoms, as perceived by the client's parents/guardians as measured by the Y-OQ. Parental responses to a survey administered at discharge indicated satisfaction with the effectiveness of the treatment, attributed important contributions made by involvement with horses during the therapy, and indicated a higher level of subjective feelings of comfort during EAFT sessions as compared to conventional office-based psychotherapy.

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