Chapter 10
Equine-Assisted Therapy: An Overview

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10.1 Introduction

Equine-assisted therapy (EAT), an umbrella term for various forms of therapy such as physical therapy, occupational therapy, speech-language therapy and psychotherapy where a horse is part of the treatment team, is an emerging field internationally. The Federation for Horses in Education and Therapy International has members in 49 countries (Federation of Horses in Education and Therapy International (HETI 2012)), and the number of educational programs offering training in this field is growing. In order for equine-assisted therapy to be established as a valid form of treatment and accepted as different from recreational activities involving horses, more research and information is needed. The purpose of this chapter is to provide an overview of equine-assisted therapy including the history of the field and of the human-horse relationship, the current state of research, considerations for a general theoretical framework, and a review of equine-assisted therapy as physical therapy and as psychotherapy.

10.2 History and Background

10.2.1 Defining Equine-Assisted Therapy

Equine-assisted therapy can be defined in the most basic way as the inclusion of a equine, typically a horse, mule, or donkey, in a therapy setting with the purpose of

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Fig. 10.1 Equine-assisted therapy is treatment that incorporates equine activities and/or the equine environment (Photo courtesy of Nina Fuller Photography)

enhancing treatment outcomes for the client. The Professional Association of Therapeutic Horsemanship International offers the following definition: "equine-assisted therapy is treatment that incorporates equine activities and/or the equine environment (Fig. 10.1). Rehabilitative goals are related to the patient's needs and the medical professional's standards of practice" (Professional Association of Therapeutic Horsemanship International, PATHIntl). Individuals who may legally provide therapy in their state or country through appropriate license or other applicable credentials can conduct equine-assisted therapy after acquiring training on including horses in the specific form of therapy they practice. It is interesting to note that equine-assisted therapy, although sometimes considered under the general category of animal-assisted therapy, is typically seen as a separate field (Kruger and Serpell 2010).

Equine-assisted therapy should not be seen as a singular, isolated approach, but as a strategy for the practitioner to use within his or her theoretical orientation. Fine (2010) suggests three questions that practitioners should consider when incorporating animal-assisted interventions with their clients. They are modified here for the equine-assisted therapy context:

1. What benefits are the horse and therapeutic equine activities expected to bring to treatment? In general? For a specific client?
2. How can equine-related activities be incorporated into the treatment plan? For instance, will horses be part of every therapy session?

3. How will the therapist adapt his or her clinical work to include equine-assisted therapy? What kind of equine-related activities will be most appropriate?

Equine-assisted therapy can be divided into two general areas: the inclusion of equines in physically oriented therapies such as physical therapy, occupational therapy and speech therapy, and in mental health therapies such as psychotherapy and counseling.

10.2.1.1 Hippotherapy

The term hippotherapy is used when physical aspects of equine-assisted therapy are emphasized (Strauss 1995), It can be defined as a treatment strategy used by a licensed physical therapist with additional training in hippotherapy where the utilization of equine movement is a core component (Deutsches Kuratorium für Therapeutisches Reiten (DKThR), Schweizer Gruppe für Hippotherapie-K®, Österreichisches Kuratorium für Therapeutisches Reiten (OKTR)). In the United States, occupational therapists and speech-language pathologists may also conduct hippotherapy (American Hippotherapy Association). German occupational therapists are offered a separate training for conducting occupational equine-assisted therapy (DKThR). Hippotherapy can literally be translated as 'horse therapy'. Because of this, the term has sometimes been used as an umbrella term, much like equine-assisted therapy. This use of the term is discouraged, as hippotherapy is a well-defined equine-assisted therapy treatment strategy and recognized as such internationally.

10.2.1.2 Equine-Assisted Mental Health

Equine-assisted mental health can be used as an umbrella term for psychotherapeutic services that involve horses and are provided by licensed mental health professionals. Examples of terms commonly used in the United States to describe these services are equine facilitated psychotherapy, equine-assisted psychotherapy and equine-assisted counseling (Hallberg 2008). These sub-terms are not clearly defined; practitioners may choose a term based on personal preference and the equine-assisted mental health training they have received. In Germany, the terms *Psychotherapie mit dem Pferd*; *Psychotherapeutisches Reiten*, and *Pferdegestützte Psychotherapie* are used (Fachgruppe Arbeit mit dem Pferd in der Psychotherapie (FAPP), Münchner Schule für Psychotherapeutisches Reiten, Opgen-Rhein et al. 2011). When including horses in psychotherapy the emphasis is placed on the interactions and relationships between client, horse and therapist. Activities, which may take place on the ground or on horseback (Fig. 10.2), are chosen to support treatment goals set forth by the mental health professional and client (PATHIntl).

Fig. 10.2 Equine-assisted mental health activities can take place on the ground or on horseback (Photo courtesy of Arizona Burn Foundation/Jack Jordan)

10.2.1.3 Discussion

Standardized terminology or, at least, clearly defined terms are important, not only in terms of research and international communication but also for clinicians, clients, and insurance companies. The issues noted in early literature reviews (MacKinnon et al. 1995; Fitzpatrick and Tebay 1998) regarding terminology are still common in the field today.

The misuse of terms is particularly serious when confusion arises over equine-assisted activities that may be legally defined as therapy, and those that may not. Broadly stated, sessions involving horses that are not conducted by licensed therapists with specific training in equine-assisted therapy cannot be considered equine-assisted *therapy*, and the person who is facilitating the session should not present it as such. However, in countries such as Sweden, an education professional with a special education focus may train to become a so-called riding therapist (*ridterapeut*), delivering 'riding therapy' (*ridterapi)* (Intresseföreningen för Ridterapi, IRT). When training programs in equine-assisted therapy are open to professionals in fields outside of traditional therapy professions, such as in the above example, the practitioner should be careful to only provide services within his or her scope of practice as determined by credentials and professional standards.

Equine-assisted activities that cannot be considered therapy are educational in nature. They are lead by professionals who have additional training in how to facilitate learning or coaching sessions that include horses. These activities are different from equestrian pursuits such as riding lessons in that the primary intent of the session is the

development of life skills and personal growth through equine interactions and the equine environment (PATHIntl).

Because of the inconsistent use of terms and the different translations employed, systematic reviews of research on various forms of equine-assisted therapy can be challenging. Without clear definitions of terms and thorough descriptions of session activities, studies are difficult to compare and reproduce. An example of a term that has caused confusion internationally is *therapeutic riding* (see also Sect. 10.2.3). Although the word therapeutic may be understood as derived from therapy, it is also used to describe an activity that can be understood as beneficial, without fulfilling the legal requirements of therapy. The term therapeutic riding has been used in Germany since 1970 as an umbrella term for equine activities and therapy in the areas of medicine, education, psychology and riding as a sport for the disabled (DKThR). The term was also formerly used by the Federation for Horses in Education and Therapy International as an all-encompassing description of equine activities and therapy. Today the federation uses equine-assisted activities as an umbrella term for the field (Federation for Horses in Education and Therapy International, HETI). The Horses and Humans Research Foundation defines therapeutic riding in the United States as "mounted activities including traditional riding disciplines or adaptive riding activities conducted by a trained instructor" (Horses and Humans Research Foundation, HHRF), and suggests equine-assisted activities and therapies (EAA/T) as an umbrella term. Therapeutic riding, as conducted in the U.S., is not a form of equine-assisted therapy, despite its name. It is conducted by a certified therapeutic riding instructor with the purpose of contributing positively to the well-being of people with disabilities (PATHIntl). As a result, caution must be taken when comparing services and research studies where the term therapeutic riding is used.

Lack of consistent terminology within the field of equine-assisted therapy is a professional and ethical issue. Practitioners should provide detailed and accurate descriptions of the equine-assisted treatment strategy they provide in order to avoid misrepresentation.

10.2.2 History of the Human-Horse Relationship

The domestication of the horse, which is often considered the starting point of the human-horse relationship, can be traced back to approximately 4000 BCE (Outram et al. 2009). In the past 6,000 years, the versatility of the domestic horse, *equus caballus*, has contributed to the development of civilization in many meaningful ways, most notably in transportation, trade, warfare, and agriculture (Johns 2006). The ability to travel more efficiently with the help of horses made new communications and trade possible, which some scholars believe contributed to the development of modern languages (Anthony 2007). As the western world eventually moved from primarily agrarian to industrial, the horse, an integral part of agriculture and day-to-day life (Fig. 10.3), lost its position in society to motorized vehicles (Budiansky 1997).

Fig. 10.3 The horse has historically been an important part of agriculture and day-to-day life (Photo courtesy of the author)

Horses are still being used in farming, ranch work, and logging around the world, although to a much lesser extent (Brandt and Eklund 2007; Pickeral 2005). With increasing numbers of horses in sport and leisure, and most recently in therapy, it is clear that the role of the horse in society is being redefined (Miller and Lamb 2005).

The horse has been featured in art, legends, and creation stories throughout history. From prehistoric cave paintings to motion pictures, images of the horse can be found across cultures (Pickeral 2008). In the mythology of the Celts, Greeks, Persians and Arabs, among others, the horse has a place of honor and is considered as a messenger of god between the spiritual and material worlds. Norse mythology features Sleipnir, Odin's eight-legged horse, who would travel both in the skies and in the underworld, as well as Skinfaxe and Rimfaxe, the horses of Day and Night, who were ridden across the sky to bring a new day (Frewin and Gardiner 2005; McCormick and McCormick 1997). Pegasus, the winged horse of Greek mythology, is one of the most well known mythological horses (Pickeral 2008). The horse has come to symbolize freedom, guidance, strength, beauty, healing abilities, and fertility, as well as physical and spiritual travel (Kohanov 2001; McCormick and McCormick 1997). Both feminine and masculine qualities can be distinguished in the symbolism surrounding the horse (Root 2000).

The horse relies on perceptual abilities and its place in the herd for survival. The tendency for caution, reactivity and flight, combined with a sense of security and comfort within the social structure of a herd, suggests that the horse is a social animal sensitive to its surroundings (Fig. 10.4). As mammals, horses have brain characteristics that suggest their learning mechanisms may be similar to those in humans (Hahn 2004). Basic learning in both horses and humans takes place through habituation, classic and operant conditioning and trial-and-error. In addition, horses can learn to categorize objects based on physical features as well as generalize stimuli

Fig. 10.4 The horse is a social animal (Photo courtesy of Nina Fuller Photography)

(Hänggi 1999; Nicol 2002). There is, however, no evidence at this point to support that horses are capable of abstract thinking, a feature supported by the presence of a large neocortex found in humans. More research is needed to further understand equine cognition and mental states (Hahn 2004).

10.2.3 History of Equine-Assisted Therapy

"That there is no exercise to be compared with horseback-riding is conceded by all well-read physicians" (Magner 1887/2004, p. 261). The positive effects of horseback riding on human health have been noted in medical literature, starting from the second century CE. Physicians such as Galen (129–200), Oribasius (325–403), Hieronymus Merkurialis (1530–1606), Sydenham (1624–1689) and Quellmalz (1697–1758) referred to riding as an excellent form of exercise (Bain 1965; Purjesalo 1991). At the end of the nineteenth century, several works were published in which riding was examined as a possible form of medical treatment. French physician R. Chassaigne reported in 1870 that riding is helpful for patients with specific neurological disorders (Brock 1997). According to Chassaigne, the movement of the horse can influence posture, balance, and flexibility of joints, as well as improve muscle strength in patients. Chassaigne also mentions positive psychological effects (as cited in Durant 1878). The book *Horseback-Riding from a Medical Point of View* was published in 1878 by American physician G. Durant. He recommends riding over other forms of exercise because of its effects on blood circulation, digestion and mental conditions (Durant 1878). In *Magner's Classic Encyclopedia of The Horse*, D. Magner describes the rehabilitative functions of horseback riding, including physical and mental benefits (Magner 1887/2004). It is believed that horses were used in the rehabilitation of wounded soldiers during World War I, but a reliable source for this information is difficult to find.

Fig. 10.5 Lis Hartel was rehabilitated through horseback riding and competed at two Olympic games

The first organizations and facilities promoting horseback riding for therapeutic purposes were founded in the middle of the twentieth century. The achievements of Danish dressage rider Lis Hartel are typically credited for making the beneficial effects of horseback riding on neuromuscular disorders known to the public. Hartel had contracted polio in one of several epidemics in Scandinavia in the 1940s and had become partially paralyzed in her legs. She rehabilitated herself by riding and went on to win two Olympic silver medals in dressage, in 1952 and 1956 (Fig.10.5).

The first centers for riding as therapy were founded in Olso and Copenhagen during the same period for the treatment of children with disorders such as polio and cerebral palsy (Bain 1965). The British Riding for the Disabled Association and the North American Riding for the Handicapped Association were both founded in 1969. Germany was the first country to develop structured educational standards for professionals in three areas of therapeutic riding: hippotherapy (medicine), Heilpädagogisches Reiten und Voltigieren (education-psychology), and riding for the disabled (sport) (Spink 1993). After the German Kuratorium für Therapeutisches Reiten e.V. was founded in 1970 it was decided that the association would use therapeutic riding as an all-comprising term for the three areas (Weber 1998).

Regarding early development of equine-assisted therapy in Great Britain and the Unites States, Spink (1993) notes:

> (…) the United States and Great Britain appeared to have no structured approach to help guide the early development and organization of therapeutic riding regarding the medical and psychological applications. The initial appeal of using horses to benefit people with disabilities seemed to be greater to horsemen and riding instructors than to professionals in

Fig. 10.6 Interest in the psychological effects of therapeutic riding grew during the 1990s (Photo courtesy of Nina Fuller Photography)

> medicine, special education, and psychology. Consequently, in these two countries, therapeutic riding developed more as a recreational activity or adapted group sport activity than as a specific medical or remedial treatment method. (pp. 5–6)

The first international congress of therapeutic riding was held in Paris in 1974. Six years later, in 1980, the Federation of Riding for the Disabled International was founded to facilitate international collaboration in the field (HETI). Hippotherapy, developed in Germany, Austria, and Switzerland, was introduced to the United States in the 1980s (American Hippotherapy Association, AHA). In the late 1980s therapeutic riding programs existed in countries such as Australia, Canada, Belgium, France and Italy (Purjesalo 1991). An adapted form of hippotherapy called developmental riding therapy emerged in the United States around the same time (Spink 1993).

While hippotherapy and therapeutic riding were gaining acceptance, the idea of including horses, or any kind of animal, in psychotherapy had still been largely unexplored. In an early paper, American psychotherapist Boris Levinson (1961) described the use of a dog as therapeutic agent in counseling with children, based on his own experiences in this practice. In the book that followed, *Pet-Oriented Child Psychotherapy*, Levinson (1969) provided examples of ways in which animals could enhance therapy. These publications are typically credited as the first purposeful descriptions of animals as part of psychotherapy in the role of a co-therapist (Fig. 10.6).

The increasing interest in the psychological effects of therapeutic riding, as well as in the inclusion of horses in psychotherapeutic services lead to the 1996 founding of the Equine Facilitated Mental Health Association in the Unites States, and the publication of a special edition journal *Die Arbeit mit dem Pferd in Psychiatrie und Psychotherapie* in 1993 by the German Kuratorium für Therapeutisches Reiten (Klüwer 2009; Hallberg 2008).

In the two decades that have passed since the early beginnings of the field, an ever-increasing number of individuals and associations wishing to promote, practice,

and provide training for areas of equine-assisted therapy have emerged. Statements regarding the effectiveness of equine-assisted therapy need to be supported by research in order for the field to gain validity.

10.2.4 Current State of Research in Equine-Assisted Therapy

Despite an exponential growth of the equine-assisted therapy field in the past decade the quality of research is considered moderate at best (Selby 2009). Challenges noted by MacKinnon et al., in 1995, such as small sample sizes, unsound methodology and lack of appropriate measures are still present in studies today. Another prevalent issue in current research and literature is when unreasonable statements are made about the "power" of these forms of treatment (Fine and Mio 2010, p. 569). It is important for clinicians to communicate day-to-day observations in order to promote further understanding of the field, but an issue of validity arises when unstructured observations are communicated as broad, definite statement about the ever-present positive effects and central elements of equine-assisted therapy. Unsupported statements are perpetuated in the literature, likely due to the wealth of observations of that equine-assisted therapy 'works', but a lack of research to support it. In other words, there needs to be a balance between the engagement required to advance a new field and the risk of overstating its effectiveness

Recent reviews of research studies in hippotherapy were completed by Bronson et al. (2010), Snider et al. (2007), Sterba (2007) and Zadnikar and Kastrin (2011). Selby (2009) has provided an extensive review of studies where a horse is a part of psychotherapeutic treatment. Conclusions that can be drawn from reviews in both areas are that equine-assisted therapy, as hippotherapy or as a psychotherapeutic treatment, shows promise as a treatment strategy but that more evidence is needed to support its clinical effectiveness.

Fine and Mio (2010) mention the sometimes uneasy relation between clinicians and researchers and the need for collaboration between the two. In interviews with stakeholders in the fields of equine facilitated mental health and equine facilitated learning conducted by the Certification Board for Equine Interaction Professionals, some respondents were concerned about the increasing importance of research. These respondents feared that research investigation may ultimately create requirements which reduce practice to a number of pre-set ways, diminishing the value of intuitive skill within the profession (Certification Board for Equine Interaction Professionals, CBEIP 2008). However, research should not be seen as restriction but as a way to ensure longevity and effective treatment. It is also important in terms of justifying the additional costs of including a horse in treatment, including travel and use of facilities.

Qualitative studies exploring experiences and themes, as well as case studies, are important for insight into and development of clinical practice. The use of randomized control trials, regarded as the gold standard of evidence-based practice, in addition to sound methodological design and large sample sizes, is encouraged in order to establish an evidence base for animal-assisted therapies (Kazdin 2010).

10.3 Principles

10.3.1 Considerations for a Theoretical Framework of Equine-Assisted Therapy

Despite the lack of an evidence-based framework for equine-assisted therapy, a number of theoretical assumptions of why it is useful are commonly found in the literature. What is presented here should be considered broad, potential foundations of equine-assisted therapy. Section 10.5 contains descriptions of additional elements specific to each treatment strategy.

10.3.1.1 Biophilia

The biophilia hypothesis is defined as an innate human tendency to focus on other living beings and lifelike processes (Wilson 1984). It does not suggest that humans have a natural affection for animals but that attention to, and knowledge of, environmental cues have been an important part of human evolution (Kruger and Serpell 2010). There is a large body of data supporting the stress-reducing effects of simply watching landscapes or the movement patterns of animals in calm states (see Katcher and Wilkins 1993). In other words, events in nature may be associated with a sense of safety or a sense of danger in humans. The biophilia hypothesis is sometimes used to support the notion that low-intensity interaction with a relaxed horse can have a calming, de-arousing effect, but it is likely that other factors, such as using rhythmic touch, may have a stronger effect in reducing arousal in the client. Research on neurobiological aspect of equine interactions has recently been given funding (National Institute of Child Health and Human Development (NICHD); Beetz et al. 2011). More research is needed regarding the effects of equine interactions on neurobiology.

10.3.1.2 Touch

The use of touch is common in physical and body-based therapies but considered controversial in psychotherapy (Phelan 2009). Yet, bodily touch is considered a significant part of the human experience (Montague 1971). Equine-assisted therapy practitioners frequently comment how the body of the horse, with large areas of contact, presents many opportunities for touch (Esbjorn 2006; McConnell 2010). Physical closeness with a horse may provide a non-threatening opportunity for touch for clients with a background of abuse. Sokolof (2009) presents a case study in which the client, through sensory exploration of the horse's coat, found a renewed connection with her physical self. Brooks (2006) notes how the horse can provide a client with the experience of being held in a safe environment. She also comments on how the client's use of touch with an animal can be part of diagnostic

Fig. 10.7 Equine-assisted therapy offers many opportunities for touch and movement (Photo courtesy of Nina Fuller Photography)

assessment (Fig. 10.7). As proposed by Schulz (1999), rhythm, touch and skin contact, naturally present in equine-assisted therapy, are essential elements of human development.

10.3.1.3 Therapeutic Environment

The environment in which equine-assisted therapy takes place can be considered an important element of treatment (Bizub et al. 2003). Vidrine, Owen-Smith and Faulkner (2002) propose:

> Part of the farm experience's therapeutic potential lies in its unpredictability. It is by no means a sterile, controlled environment. Groups had to problem-solve around the weather and horse issues such as illness or missing shoes. The 'controlled chaos' of the farm invited creativity and trial and error. It provides a 'good enough' environment filled with incidental learning opportunities such as a visit from the horse dentist, vet, or blacksmith (p. 600).

Based on her own clinical experiences, Hallberg (2008) proposes that the barn environment may contribute to the client disclosing thoughts and feelings more easily. Hanna et al. (1999) suggest that there is an increased likelihood of self-disclosure in environments outside of the counseling office with defiant and aggressive adolescents. In addition being to a non-traditional setting for therapy, the equine-assisted therapy environment enhances sensory stimulation through numerous interactions within a natural setting. Research is needed to establish which, if any, elements of the outdoor therapy environment contribute to or detract from treatment. In a recent review of the mental health effects of participating in physical activity in an outdoor natural environment as compared to indoors, Thompson-Coon et al. (2011) found promising effects on self-reported mental wellbeing immediately following exercise in nature but cautions readers that the

interpretation of the findings is hampered by the low methodological quality of some of the studies included.

10.3.1.4 Movement

Movement is an inherent part of any equine-assisted therapy, regardless of physical or psychological treatment focus. In hippotherapy, movement is controlled and manipulated according to goals of treatment and central to the treatment strategy. Movement is also present in equine-assisted mental health through both mounted work and activities on the ground with the horse. In addition to general physical benefits of exercise for all populations, research indicates a beneficial effect of physical activity on depression (Brosse et al. 2002; Mata et al. 2012; Rethorst et al. 2009).

10.3.1.5 Relationship

A major feature of therapies incorporating a horse is the opportunity for the client to form a relationship with an other-than-human being. In physical therapy, added social and emotional aspects through the relationship with the horse may contribute to a more enjoyable and dynamic treatment session for the client (Strauss 1998). In equine-assisted mental health, exploring the client-horse relationship is a central aspect of treatment (Esbjorn 2006; Hayden 2005). It is also believed that animals may assist in building rapport between client and therapist (Kruger and Serpell 2010).

10.3.1.6 Client Motivation for Therapy

Lack of client motivation for treatment is a multifaceted concept in both physically and psychologically oriented therapy (Maclean and Pound 2000; Bachelor et al. 2007). Statements regarding increased client motivation for therapy in equine-assisted treatments typically refer to motivation to attend and engage in the therapy situation (Cook 1997; Heine 1997). Macauley and Gutierrez (2004) found that hippotherapy improves the motivation of children to attend and participate in speech-language therapy. However, due to a very small sample size (n = 3) the results cannot be generalized. In a qualitative study by McConnell (2010), a number of programs reported that it is the horse that draws the client to treatment. It has been theorized that the presence of a horse may help the client endure physical or emotional pain in treatment session (Kruger and Serpell 2010), and thus increase motivation for participation. For instance, the horse might help divert attention from uncomfortable physical experiences (client petting the horse while stretching in hippotherapy), or be perceived as a source of nonjudgmental support and warmth (client leaning against the horse while sharing a traumatic experience in equine-assisted mental health, Fig. 10.8).

Fig. 10.8 Equines may represent an additional source of support to the client in the therapy process (Photo courtesy of Nina Fuller Photography)

10.3.2 Ethical Considerations

The lack of an evidence-based framework for equine-assisted treatment strategies can lead to practical, ethical and safety issues for practitioners and clients alike. An awareness of ethical considerations that exist when including a horse as part of treatment is of crucial importance. Recognizing that a moral and philosophical discussion underlies the entire concept of using animals in human therapy (Zamir 2006), what is presented here are general issues of ethical concern in equine-assisted therapy.

10.3.2.1 The Therapist

Hallberg (2008) identified three areas of ethical concern for practitioners in the fields of equine-assisted mental health and learning: lack of competence regarding the practical application of equine-assisted services, lack of equine knowledge and experience, and lack of safety awareness. These issues can be generalized to the whole field of equine-assisted therapy.

Therapist training in the field of equine-assisted therapy is paramount. There are a number of training programs available and the professional must consider whether a brief exposure, such as a workshop, is enough in order to incorporate horses into

Fig. 10.9 The therapist is responsible for the equine-assisted therapy session (Photo courtesy of PATH Intl., Denver, CO)

treatment and still ethically provide services within his or her scope of practice. Needless to say, a well-trained therapist will seek lengthy training and supervision when incorporating a new treatment strategy into his or her work. He or she will also strive to keep informed through continuing education. It is difficult for clients to make an informed decision about the experience of a therapist providing equine-assisted therapy as training programs may offer a certificate after only a brief seminar. The therapist should provide a detailed account of training and experience to the client prior to the start of treatment, as part of general ethical practice.

Therapists wishing to incorporate a form of equine-assisted treatment strategy into their practice should have sufficient horse experience to be able to ensure a safe and ethical environment for both client and horse. Whether the treatment session includes safety support assistants, which is standard practice in hippotherapy, or so-called equine specialists, which is recommended by some training programs in equine-assisted mental health, the therapist is ultimately responsible for the session (Fig. 10.9). It can be argued that practicing equine-assisted therapy without equine knowledge or experience is an ethical violation related to scope of practice.

Considerations for reducing risk of harm in therapy are especially important when including a large animal in the treatment situation. The inherent physical risks of equine activities should be explained in the client consent document and the therapist should maintain good risk management practices. This includes the engagement of experienced horse handlers, assistants and co-therapists, when applicable. Hippotherapy should always be conducted in a team (Strauss 1995). The therapist

Fig. 10.10 An understanding of equine behavior, mental processes and learning is necessary in order to maintain the wellbeing of the therapy horse (Photo courtesy of Nina Fuller Photography)

needs to assess the suitability of any assistant in the treatment situation and ensure that issues around role and confidentiality are resolved prior to client work.

In order to reduce risk, the activities used in equine-assisted treatment, especially in equine-assisted mental health, should be carefully chosen as to not intentionally trigger a fight/flight/freeze response in the horse. Transmission of zoonotic disease, an area of risk typically addressed in the literature on animal-assisted therapy (Fine 2010), has not been discussed much in the context of equine-assisted therapy.

10.3.2.2 The Horse

Ethical considerations related to the therapy horse concern welfare and care, as well as suitability and preparedness for the activities it will take part of in equine-assisted treatment. Currently, few published (Gehrke et al. 2011; Kaiser et al. 2006) and unpublished (Pyle 2006; Suthers-McCabe and Albano n.d.) studies can be found on the effects of equine-assisted therapy on the horse. A well-defined work role for the therapy horse will help the practitioner in the selection and assessment for suitability. For instance, if the horse is included as part of physical therapy, its conformation, quality of gait, and obedience are characteristics central to its work role (Spink 1993).

An understanding of equine behavior, mental processes and learning is imperative in order to maintain the wellbeing of the therapy horse and to avoid the emergence of unwanted behaviors such as aggression (Fig. 10.10). Considerations

for equine welfare should go beyond biological functioning and the absence of pain (Heleski and Anthony 2012). In addition, an awareness of the human tendency for inaccurate anthropocentric and anthropomorphic descriptions of the horse (such as the horse being 'kind', 'bad' or 'lazy') is important (McGreevy and McLean 2010).

In equine-assisted mental health, where a variety of mounted and ground work activities can be used with clients, the practitioner might design activities meant to challenge the horse so that the client may visually perceive how he or she is affecting the environment. Kruger and Serpell (2010) note that animals are commonly thought to expedite the rapport-building process between therapist and client in mental health. Thus, it is hard to imagine that therapeutic alliance, considered a consistent predictor of therapy outcome (Martin et al. 2000) where trust and respect, among other things, are central (Ackerman and Hilsenroth 2003), could be fostered in an environment where the equine is intentionally distressed. Careful consideration of current practices is needed to ensure that high-levels of stress are not induced in the therapy horse.

10.3.2.3 The Client

Equine-assisted therapy is not indicated for all client populations. The therapist needs to be knowledgeable about specific precautions and contraindications for the equine-assisted treatment strategy they employ and assess the client for suitability prior to entering treatment. The client should have an understanding of the nature of the treatment strategy as well as the inherent risks of horses prior to treatment in order to give informed consent. In addition, issues related to maintaining confidentiality due to the nature of the treatment setting should be clearly communicated. Finally, regardless of the therapist's own interest in equine-assisted therapy, he or she must recognize when a client might benefit more from a different treatment strategy and make an appropriate referral.

Hallberg (2008) comments that clients may perceive the client-therapist relationship in a more informal way when in the equine environment. The therapist is likely casually dressed and it is possible that treatment is taking place in equine facilities at the therapist's home. The opportunity for the client to see the therapist outside a conventional office setting may increase the likelihood of the client misperceiving the nature of the therapeutic relationship. Therapists need to be aware of the potential of this client perception and maintain healthy professional boundaries at all times.

It is common, even recommended, that the therapist has a pre-existing relationship with the therapy horse in equine-assisted mental health (Yrjölä 2009). Practitioners must explore feelings and projections in their personal relationship with the therapy horse before seeing clients. This is necessary so that the therapist does not become personally affected by what the client projects onto the therapy horse, especially when projections are experienced as negative or in conflict with those of the therapist (Scheidhacker 2009).

10.4 Practice

The physical and psychotherapeutic treatment strategies in equine-assisted therapy share common theoretical assumptions about why they are beneficial (see Sect. 10.3.1). In addition, each treatment strategy emphasizes specific aspects of the interaction between client and horse. The way the therapist utilizes an equine-assisted treatment strategy in clinical practice should support and augment his or her theoretical orientation (Fine 2010). A brief description of the two main areas of equine-assisted therapy is provided here, including nature of treatment, role of horse and therapist, as well as indications and contraindications for clients.

10.4.1 Hippotherapy

Hippotherapy can be defined as a treatment strategy in which the utilization of equine movement is a core component. The therapist who includes hippotherapy in his or her practice is trained and licensed as a physical therapist, occupational therapist or speech-language pathologist with additional training in hippotherapy (AHA, DKThR). The purpose of this treatment strategy is to address impairments, functional limitations, and disabilities in clients with neuromusculoskeletal dysfunction (AHA).

10.4.1.1 Nature of Treatment Strategy

The three-dimensional movement of the horse at a walk provides input to the client closely resembling that of human walk (Uchiyama et al. 2011). The effect is very similar in terms of lateral pelvic tilt, direction of displacement from center of gravity, and temporal sequence of stride (Fleck 1997). Lateral pelvic shift is larger when riding, which indicates a greater effect on trunk and spine (Heine 1997). The rhythmical impulsions from the horse cause continuous muscle flexion and provide an opportunity for the client to practice equilibrium and righting reactions. According to the American Hippotherapy Association (n.d.a, b):

> The effects of equine movement on postural control, sensory systems, and motor planning can be used to facilitate coordination and timing, grading of responses, respiratory control, sensory integration skills and attention skills. Equine movement can be used to facilitate the neurophysiologic systems that support all of our functional daily living skills.

Hippotherapy usually takes place at the walk in an enclosed area. If the equine facility has a trail course within its premises it can be used in the hippotherapy session. The client is mounted on the therapy horse throughout the session but does not control the horse. The client may also take part in grooming the horse prior to the session to support functional skills and bonding with the horse. Adaptive equipment, such as a surcingle with handles or safety stirrups, is chosen depending on the client's needs and functional level. A saddle is typically not used in order for the

Fig. 10.11 Hippotherapy is always conducted in a team (Photo courtesy of PATH Intl., Denver, CO)

client to receive maximum input from the movement of the horse. The session includes a horse handler, who leads or long-lines the horse (this can also be done by the therapist), and side walkers if needed. Side walkers are positioned on either side of the horse to ensure that the unstable client is not at risk for falling and may also assist the client in carrying out movements as directed by the therapist (Fig. 10.11). Activities in the session include changes in length of stride, tempo and direction; patterns such as serpentines or figure eights, modified client positions on the back of the horse, and the use of equipment such as balls or rings for exercises (Heine 1997; Spink 1993).

10.4.1.2 Role of the Horse

The therapy horse provides the movements that are central to the treatment strategy. Unlike equipment used in traditional physical therapy, the horse may also be a source of client motivation and bring additional social and emotional benefits to the session (Strauss 1998). The therapy horse is carefully chosen for quality of gait and overall conformation. He or she is continuously trained to maintain muscle symmetry and to ensure compliance with cues from the therapist and the horse handler. Additionally, soundness needs to be carefully monitored and an assessment should be done prior to each session. It is important that the therapy horse has been desensitized to various elements of the hippotherapy situation by a knowledgeable

equine professional in order to reduce the risk of stress and stress-related behaviors. A thorough screening and training system, such as the one proposed by Spink (1993) should be in place to ensure quality of treatment and ethical practice with regards to the therapy horse.

10.4.1.3 Role of Therapist

The therapist trained in hippotherapy will not only need to assess the client and make decisions for treatment but also evaluate the therapy horse, the assistant(s) and the facility (Strauss 1995). An important part of maintaining a professional and therapeutic setting, which is the responsibility of the therapist, is to have appropriately trained assistants in the hippotherapy session. Assistants should be familiar with the treatment strategy and therapy-specific requirements such as confidentiality and professional boundaries. This will reduce the risk of assistants inadvertently disrupting the therapeutic process through affecting the horse or the client in a negative or inappropriate way. The therapist should also monitor his or her own actions and use of language with regards to the horse and team members.

The dynamic nature of a hippotherapy session requires the therapist to constantly monitor the client and modify activities. It is the skill and creativity of the therapist that determine the quality of treatment. When matching a client with a therapy horse the therapist considers size and gait characteristics of the equine. The therapist also chooses the appropriate adaptive equipment for the client, which may change as treatment progresses. Finally, therapists must remember that adequate insurance is needed when conducting hippotherapy as part of their practice (Strauss 1995).

10.4.1.4 Indications and Contraindications

Each client needs to be individually evaluated by the referring physician for hippotherapy. The indications and contraindications presented here are general recommendations.

Hippotherapy is indicated for individuals with the following conditions: cerebral palsy, multiple sclerosis, head and brain trauma, developmental neurological conditions, post-traumatic neurological conditions, post-inflammatory neurological conditions and degenerative neurological conditions (Strauss 1995). Impairments include: abnormal muscle tone, impaired balance responses, impaired coordination, impaired communication, impaired sensorimotor function, postural asymmetry, poor postural control, decreased mobility, limbic system dysfunction related to arousal and attention skills (AHA). (Fig. 10.12)

Hippotherapy is contraindicated if the movement stimulus of the horse aggravates the client's neurological symptoms. Bone and joint changes of an inflammatory nature, inadequate cushioning between the vertebrae of the spine, atlanto-axial instability, danger of hip dislocation when sitting astride the horse, severe osteoporosis and severe scoliosis are considered contraindicative. In addition, the adult client

Fig. 10.12 The movements of the horse are beneficial for individuals with a number of impairments (Photo courtesy of PATH Intl., Denver, CO)

must be able to sit independently with sufficient head control to qualify for treatment. Contraindications unrelated to movement disorders are severe allergies, phobias related to the therapy situation, respiratory diseases, a severe heart condition and obesity (Strauss 1995).

10.4.2 Equine-Assisted Mental Health

When a horse is included in psychotherapy, a number of different terms are used internationally. In this chapter, the umbrella term equine-assisted mental health is used to encompass equine-assisted psychotherapeutic services provided by licensed mental health professionals who may legally practice psychotherapy or counseling in their country of residence.

10.4.2.1 Nature of Treatment Strategy

Horses can be included in psychotherapy in a variety of ways (McConnell 2010). There is no commonly accepted theoretical framework for equine-assisted mental health, and therapists should, in fact, include horses in a way that informs and enhances their theoretical approach and training (Fine 2010).

The format (individual, family or group) and the activities used for the equine-assisted mental health sessions are determined by the therapist, based on the client's treatment plan. Therapy can take place in a number of equine settings (stable, pasture, arena, riding trail), and a variety of activities can be incorporated to support treatment goals. Activities such as grooming, leading, longing, vaulting, driving and riding are modified for the purpose of therapeutic gain when included in treatment

Fig. 10.13 Activities in equine-assisted mental health, such as grooming, are modified for the purpose of therapeutic gain (Photo courtesy of Arizona Burn Foundation/Jack Jordan)

(Fig. 10.13). Clients may also interact with horses in a number of non-traditional ways, such as painting the horse or observing equine behaviors. Challenge-based activities in a game format, based on experiential learning principles, are sometimes used (Hallberg 2008).

The difference between equine-assisted mental health activities and those done in a traditional equestrian setting is the focus on therapeutic goals. Whereas learning equine skills can be part of treatment it is not the main reason for interactions with the horse in therapy. The client's interpretation of an equine interaction is considered more important than the horse's actual behavior, as it may offer insight into beliefs the client has about him or herself and others. The therapist uses therapeutic metaphors when facilitating activities in order to help generalize the client's experiences to the rest of his or her life.

Karol (2007, p. 80) suggests, based on her own clinical experiences, that the following six aspects may be conducive to psychotherapeutic work including horses: (a) the actual experience; (b) the unique experience of being in relation to the horse; (c) the experience of the therapeutic relationship with the practitioner; (d) nonverbal experiences in communication with the horse; (e) preverbal/primitive experience such as contact, comfort, touch and rhythm; and (f) the therapeutic use of metaphor.

Recent qualitative investigations have aimed to describe essential features of the equine-assisted mental health session from both the client (Hayden 2005; Whitely 2009) and therapist (Esbjorn 2006; Frame 2006; McConnell 2010) point of view. It is still unclear which specific elements in the treatment session with the horse that need to be present for treatment to be effective (such as a positive relationship with the horse, or the perception of risk), and which populations are indicated for the best

therapeutic outcome. In addition, each individual will likely benefit from a unique combination of elements in the equine-assisted mental health session.

Anthropomorphism, defined as the tendency to ascribe human characteristics to animals or innate objects, is central to the therapeutic experience in equine-assisted therapy (McConnell 2010). The fact that humans anthropomorphize animals (as being 'good', 'bad', 'nonjudgmental', 'accepting' and so forth) makes it possible for the clients to interpret the horse's behaviors within their own emotional world; to project feelings onto the horse; to feel a sense of bonding or attachment to the horse; and to accept interactions with the horse as metaphors for other relationships.

Many practitioners report that the horse 'mirrors' the client, or can 'read' the client's emotions. When these statements are being used in a therapeutic context for the benefit of the client, they can be helpful. For instance, when the horse reacts to the actions of the client, the therapist can ask the client to interpret the behavior or may offer possible explanations as part of insight-oriented work. Horses react to a number of stimuli in their environment and there is currently no support in the scientific literature for an inherent equine ability to 'read' human emotional states (McGreevy and McLean 2010). Practitioners have an ethical responsibility not to overstate what can be expected from this treatment strategy.

Brooks (2006) describes two models for working in equine-assisted mental health: a triangle model, which consists of the client, the horse and the therapist; and a diamond model, which also includes an equine professional as an integral part of treatment (Fig. 10.14). The role of the equine professional, often referred to as an equine specialist in the United States, is to monitor equine behavior in the session and to offer equine-specific observations to the client. The therapist may also include assistants in the session, to lead the horse or to support a client when riding.

10.4.2.2 Role of the Horse

The therapy horse is typically seen as a source of support and relationship, as well as a facilitator of insight and change (Esbjorn 2006; Frame 2006; McConnell 2010). Additionally, the horse has been described as a co-facilitator, an assistant, and sometimes as a therapeutic tool in the therapy session (Esbjorn 2006). Since the horse may have different functions depending on client goals, therapist orientation, and activities used in the session, a training protocol for the therapy horse in equine-assisted mental health is difficult to outline. Pain, fear and high-levels of stress will increase the risk for behaviors that might results in the client or horse becoming injured. The therapy horse should be trained for client interactions, such as riding and specific groundwork activities. The horse should also be familiar with tools and props used in sessions. It is important that the therapy horse receives consistent training and handling outside the client situation to reinforce desired behaviors and reduce the probability of stress (McGreevy and McLean 2010).

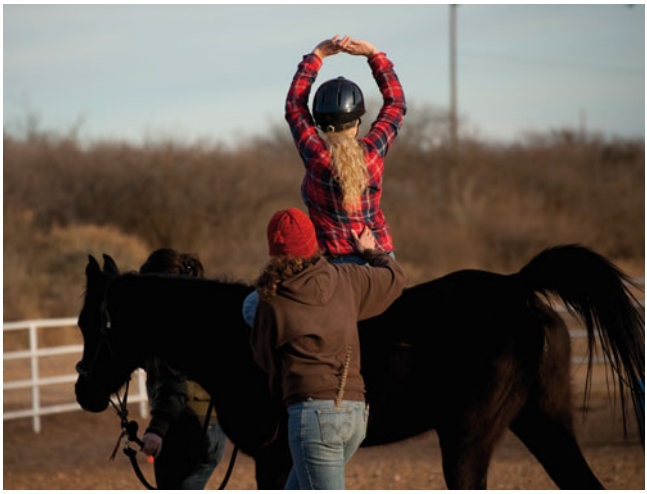

Fig. 10.14 The difference between equine-assisted mental health activities and those taking place in a traditional equestrian setting is the focus on therapeutic goals (Photo courtesy of Nina Fuller Photography)

10.4.2.3 Role of Therapist

The nature of psychotherapeutic work with horses requires the therapist to not only be aware of the dynamic between him or herself and the client but also what is taking place between the client and the horse. As equine-assisted mental health does not rely on a specific psychotherapeutic approach, the therapist can interpret the interactions and what the client offers within the context of his or her theoretical orientation. The inclusion of a living being into the therapy session opens up new possibilities for treatment but also for the risk of things not going as planned. The therapist should be prepared for events such as the death of a therapy horse and the impact it might have on the client (Cohen 2010).

In determining the client's suitability for equine-assisted treatment, the therapist must consider a number of factors specifically related to the nature of this treatment strategy. In addition to pondering the three questions presenter earlier in this chapter, the therapist should ask the client about previous equine experiences and explore whether there are cultural or religious beliefs that may be counterintuitive to treatment. Traumatic experiences involving horses, or a history of animal abuse should be known by the therapist ahead of time. These client experiences are not necessarily contraindicative but the level of severity will guide the therapist in making sound clinical decisions regarding treatment.

A practitioner with a strong interest in equine-assisted mental health might wish to consciously (or unconsciously) 'convert' clients who do not seem interested in having horses as part of treatment. These and other potential issues related to the therapist should be discussed in supervision (Scheidhacker 2009).

The therapist's responsibility to maintain a therapeutic and professional treatment setting extends to determining the suitability of assistants that are part of the session. In addition, the therapist should recognize when it might be advisable to co-facilitate sessions with a colleague, such as when conducting group therapy with horses included in the session.

Prior to seeing clients, the therapist needs to acquire the different types of insurances needed for equine-assisted work. Finally, the therapist must remember that when including a therapy horse in treatment, he or she is not only responsible for the safety of the client but also that of the horse.

10.4.2.4 Indications and Contraindications

Indications and contraindications for equine-assisted mental health have rarely been discussed in the literature (McConnell 2010). A number of studies have been conducted with adolescents (see Selby 2009) but there is not enough research to recommend or discourage treatment for specific populations or diagnoses.

It has been suggested that clients who are contraindicated for equine-assisted therapy are actively dangerous to self or others, actively psychotic, hold severe delusions involving horses, are medically unstable or in active substance abuse (PATHIntl). A history of animal abuse or fire setting is sometimes considered contraindicative because of the need to protect the therapy horses. However, the level of risk needs to be carefully assessed as individuals with such histories may benefit from equine-assisted treatment. Contraindications related to the general nature of treatment are severe allergies, phobias related to the therapy situation, respiratory diseases, a severe heart condition and severe obesity (Strauss 1995).

10.5 Conclusion

An international field of study and practice based on an interest in horses as therapeutic agents has emerged during the past decades. Currently, professionals in a number of countries utilize equine-assisted therapy, the inclusion of horses in physical or psychotherapeutic treatment. This chapter has provided a brief overview of equine-assisted therapy, its history, terminology, ethical considerations, research and practice. The inclusion of horses in therapy is set apart from other horse-related activities by the involvement of licensed/credentialed professionals and the focus on therapeutic goals based on the client's treatment plan. While some progress has been made to clarify this distinction through the use of appropriate terminology, there are still many issues that need to be addressed in order for equine-assisted therapy to be recognized as a valid strategy in treating both physical and psychological disorders.

For an emerging field to move forward, enthusiasm and engagement are undoubtedly needed. Practitioners and others interested in the development of equine-assisted

therapy should, however, be careful not to overstate the benefits of this treatment strategy. As aptly inquired by the late Barbara L. Heine, an American pioneer in the field of hippotherapy: "[is it better] to be exuberant, or to be correct"? (AHA). More research is needed to establish the effectiveness of equine-assisted therapy, as the two most fundamental questions for this field are still unanswered: does including a horse in treatment improve the effectiveness of therapy? And if it does, what is it about the equine interaction that makes a difference? The future of the field will depend on the continued collaboration between practitioners, researchers, and other stakeholders in answering these questions.

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