
Invisible A Narrative Review of Qualitative and Quantitative Research in Equine-assisted Social Work Therapy- Addressing Gaps and Contradictory Results

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ABSTRACT

This article reviews the published literature narrative about equine-assisted or equine-facilitated social work or therapy, a growing area of interventions. The purpose is to shed light on gaps and contradictory results in previous studies between 2000-2014. The goal is to assist practitioners and researchers, identifying and providing perspectives on complicated issues when results of interventions are pointing in different directions. In total, 55 published articles and 15 dissertations were analyzed thematically. Excluded are studies focused on therapeutic riding for the physically disabled or hippotherapy benefiting from equine movement, as well as studies focused on individuals' riding goals or horsemanship skills. The implications for further research address gaps in the literature on the process in equine assisted or facilitated work. The process need to be described from professional affiliation, the purpose of the intervention, theoretical perspective, the intended role of the horse, ethical approach both concerning the client and the horse, plan to prevent risks as well as describe risks in relation to possible outcomes both for the client and the horse and finally a description about how the intervention are evaluated. Standardization of terminology and language used to communicate interventions, methods, and theories is recommended. The analysis suggests a need to use a variety of research methods in interdisciplinary research groups. This allows different paradigms of participatory, as well as constructivism or post-positivism, to capture the complexity of social work or therapy facilitated or assisted by horses. This article does not critically review each specific investigation, but focuses on how the process has been presented in previous research.

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It has been argued that it all started with the Danish equestrian Liz Hartel's Olympic victory in the 1952 dressage competition. Shortly after winning the silver medal, despite being paralyzed below the knees because of polio, Liz and her therapist founded Europe's first therapeutic riding center and facilities for patients with physical handicaps spread throughout Europe in the late 1950s (Arkow, 1987; Notgrass & Pettinelli, 2014). The International Association of Human---Animal Interaction Organization (IAHAIO) was formed in 1990 and awarded working partner status with the World Health Organization (WHO) in recognition of the importance of the human---animal bond for human health and wellbeing. Working with animals for human health is defined as Animal Assisted Therapy (AAT) and under this umbrella definition there are several definitions considering horses. The horse is argued to have additional therapeutic qualities, not only because of its size and power, but also because of its inherent vulnerability as a prey animal (Vidrine, Owen---Smith & Faulkner, 2002). In addition, treatment is experienced in the horse's environment (Ewing, MacDonald, Taylor & Bowers, 2007). Horses have been a part of physical therapy longer than they have been in the field of mental health (Rothe, Vega, Torres, Soler & Pazos, 2005). Regardless, the work has been developed mainly in the horse sector rather than through the academic clinical sector (Cody, Hollerein---Steiker & Szymandera, 2011). Further, Esbjorn (2006) found that therapists use different styles and various theories. Not only do the concepts, theories, and names surrounding equine assisted/facilitated therapy or social work vary, but the methods are also quite different (Lentini & Knox, 2009). Some work with activities such as herding, leading, vaulting (gymnastics on and off the horse), or caring for horses, while others provide traditional riding instructions without focus on riding or horsemanship (Lentini & Knox, 2009; Rothe et al., 2005; Vidrine et al., 2002).

Recent literature suggests positive benefits when horses facilitate social work or therapy, resulting in developing social skills and a feeling of mastery; improved meta-cognition and reflectivity; creative thinking; increased hope, patience, responsibility, self-confidence, self-image, self-control, self-esteem, trust, and bravery; and general life-satisfaction (Bachi, Terkel, & Teichman, 2012; Bizub, Joy, & Davidson, 2003; Bower & MacDonald, 2001; Burgon, 2012; Cumella, 2010; Dell, Chalmers, Dell, Sauve, & MacKinnon, 2008; Dell, Chalmers, Bresette, Swain, Rankin, & Hopkins, 2011; Frederick, 2012; Klontz, Bivens, Leinart, & Klontz, 2007; Macauley & Guitierrez, 2004; Peterson, 2010; Rothe et al., 2005; Smith-Osborne & Selby, 2010). Other effects indicated are reduction in aggression, anxiety, depression, fear, undesirable behaviors, psychological distress, trauma, police records, drug use and less risk of recidivation, (Bachi et al., 2012; Bachi, 2014; Kemp, Signal, Botros, Taylor, & Prentice, 2013; Klontz et al., 2007; Maujean, Kendall & Roquer, 2013; Vidrine et al., 2002). Social work or therapy assisted by horses can also contribute to the development of communication skills, emotional awareness and regulation, leadership skills, social-emotional competence, and problem-solving skills, as well as provide the opportunity to experience authentic relationships (Bizub et al., 2003; Carlsson, Nilsson-Ranta, & Træen, 2014; Karol, 2007; Pendry & Roeter, 2013; Porter-Wenzlaff, 2007; Rothe et al., 2005). Nevertheless, not all studies indicate positive effects and the results are rarely significant in, for example, self-efficacy or self-worth (Bowers & MacDonald, 2001; Ewing et al., 2007; Greenwald, 2001; Hauge, Kvalem, Pedersen, & Braastad, 2013; Holmes, Goodwin, Redhead & Goymour, 2012; Selby & Smith-Osborne, 2013; Sole, 2005; Taylor & Bowers, 2007).

Previous studies indicate a discrepancy between qualitative and quantitative studies where the qualitative tend to demonstrate greater effects (Ewing et al., 2007; Pauw, 2000). Here, one solution could be to distinguish between statistically significant effects and clinically meaningful effects such as, for example, inmates who cope better with psychological impacts of imprisonment (Bachi, 2014; Pauw, 2000). Finally, as shown by Carlsson (2015), the intervention can be perceived in various ways by different clients and staff members, which drives the present paper's focus on the process. The purpose of this review has been to examine the process in equine---facilitated social work or therapy as presented in previous research. In addition, it identifies future directions for needed research in regard to the process.

Method

English-language research studies between 2000 and 2014 were searched with the goal to be comprehensive. This timeframe was selected when studies published before 2000 were uncommon and focused mostly on physical benefits, not on psychosocial outcomes. A range of electronic databases (OneSearch, PsycINFO, PubMed, etc.) were searched using the following terms: equine---assisted counselling, equine---assisted social work, equine---assisted therapy, equine---facilitated social work, equine---facilitated psychotherapy, equine---assisted experimental therapy, equine---assisted learning, therapeutic horseback riding, therapeutic riding, and equine---facilitated mental health, as well as a manual search by reference list and author (Booth, Papaioannou & Sutton, 2012). Clarification of the elements of a therapeutic relationship as opposed to the benefits of recreational activities is critical. Therefore, studies which focused on equine assisted activities were not excluded in the study initially. Selection based on client group or problem at hand in social work or therapy were not made. Studies excluded are those that focus on therapeutic riding for the

physically disabled or hippotherapy that refers to occupational or speech therapy treatment benefiting from equine movement, as well as studies focused on individuals' riding goals or horsemanship skills. Studies including qualitative or quantitative methods are represented and were analyzed through a narrative approach using a qualitative thematic analysis (Booth et al., 2012). When the focus in this study has been on how the process has been described rather than focusing on the effects of the interventions each specific investigation has not been critically reviewed. In addition, research suggests quality assessment in reviews has little value when it has little impact on the overall review findings (Booth et al., 2012).

Results

This narrative review of studies with varying methods includes 55 published articles and 15 dissertations. The sample covered a wide range of disciplines, groups of clients, and countries. Studies conducted in the United States of America were most frequent, with 35 articles in total. Europe was represented with 11 articles; Canada, five; New Zealand, two; Australia, one; and Israel, one. Most publications belong to therapy or social work, but research from career therapy, counseling, leadership development, nursing, pedagogy, and social welfare were also included. The included studies' typical object of study is a relationship in which a professional is working with the support of the horse to assist their client with their mental health, using a range of activities with the horse. Finally, a lesser number of studies include therapeutic carriage driving, interactive vaulting, prison---based interventions (Bachi, 2014; Selby & Smith---Osborne, 2013) and only one thesis focuses on prevention (Holloway, 2009).

Definitions and implications in research and practice

Equine Assisted Psychotherapy (EAP), Equine Facilitated Psychotherapy (EFP), and Equine Assisted Learning (EAL) could be described as an interactive process, with a health professional working in collaboration with an equine professional, to work with clients' treatment goals together with horses. The methodology is experimental and addresses mental, emotional and social components in contrast to earlier focus on physiological aspects as in therapeutic riding or hippotherapy (Ewing et al., 2007; Ford, 2013; Notgrass & Pettinelli, 2014; Pendry & Roeter, 2013). Mounted work is not incorporated into the model of EAP or EAL (Dell et al., 2011; Frederick, 2012), but there are exceptions (Cumella, Lutter, Smith---Osborne, & Kally, 2014). Further, the EAP team is also supposed to be non---directive and non---interpretive, and let participants make their own meaning about the horse's behavior (Notgrass & Pettinelli, 2014). If an activity could be equally effective without the horse or the staff interacts more with the horse than with the clients, then it does not qualify as EAP according to Notgrass & Pettinelli (2014). The goal is not to help the client complete the task, but rather to engage in and observe the process (Notgrass & Pettinelli, 2014). The facilitator's role is to indicate change or patterns, as well as unique moments or situations where the clients are incongruent in non---verbal and verbal communication, but not to judge them (Russell---Martin, 2006). Further, the facilitator should draw attention to themselves and their own personal reactions; in other words, they should be aware of their own biases as well as how these may influence the process (Notgrass & Pettinelli, 2014). Equine assisted social work (EASW) is similar but differs from EAP and EFP when only one staff member is responsible for both the client and the horse (Carlsson et al., 2014; Carlsson, 2015). Equine assisted activities, on the other hand, can be facilitated by a riding instructor as well as by a licensed therapist (Cody et al., 2011; Hauge et al., 2013). In all, the staff is responsible for preparation for each session, but there is a need for flexibility when a client's needs may change quickly, moment to moment and session to session (Carlsson et al., 2014; Cumella et

al., 2014; Symington, 2012). On the other hand, Maujean et al. (2013) argue for structured programs as opposed to what they call serendipitous interventions. There are programs structured through a fixed manual of lessons with step by step instructions (Miller, 2008), where the staff receives extensive training with horses and clients, as well as training in the theoretical rationale of the program (Pendry & Roeter, 2013). But there seems to be a cultural difference in how to look at standardization and structure. Some seem to lean on natural horsemanship as a structure, whereas others seem to see structure as depending on theoretical perspectives.

Only a few studies explore theoretical aspects or the unique features that underlie these interventions (Bachi, 2012). There is no consistency in which theoretical orientation this kind of work with horses should be based on as well as there is diverse client populations (Masini, 2010). Those theoretical or clinical approaches that are mentioned are attachment theory, Bandura's social cognitive theory, Buddhist core---process psychotherapy, cognitive behavioral therapy, emotional labor, empowerment theory, experiential therapy, gestalt therapy, mentalizing, mindfulness, object relation theory, psychodynamic psychotherapy, play therapy, reality therapy, social role---activity theory, solution focused therapy and transpersonal psychology. In most studies, a variety of models are used (Bachi, 2013; Burgon, 2011; Burgon, 2013; Carlsson et al., 2015; Esbjorn, 2006; Karol, 2007; McCullough, 2011; Pendry & Roeter, 2013; Russell---Martin, 2006; Smith---Osborne & Selby 2009). As an example, a technique of play therapy is storytelling, where the client will tell stories from the horse's point of view that are metaphorical or actual details of the client's life (Rothe et al., 2005). It appears that metaphor is the language of the right brain, and it bypasses the left brain's ego defenses and detailed analysis (Hamilton, 2011; Vidrine et al., 2002). Further role theory proposes that when an individual assumes a new positive role—for example, being a leader of the horse—positive behavioral change may result (Pendry & Roeter, 2013). Another

example is gestalt terapi, which takes a holistic and relational stance where creativity and experimentation address two main processes: mind---body connection and relational processes (Lac, Marble & Boie, 2013). Gestalt therapy has similarities with EAP when it focuses on working in the present moment without interpretation by the therapist through an increasing awareness of the contacting process, which in turn inhibits abilities to be authentic in relationships (Lac et al., 2013; Notgrass & Pettinelli, 2014). Chardonnens (2009) writes that the authenticity and the horse as non---evaluative is the essence of therapy with horses, and it is an approach in line with the humanist tradition developed by Carl Rogers. Other researchers, such as Karol (2012), argue that the method working together with horses does not rely on a specific therapeutic belief system, but defines a structure within which clinicians may apply their chosen theories.

Moving back to definitions, Keren Bachi (2012) finds in her review that there is inconsistency between the definition of the intervention and the evaluated intervention, as well as problems in studies done, such as sampling methods, small sample size, lack of control groups, limited duration of evaluated interventions, overgeneralization, and inconsistency between the findings and the feelings and observations of participants and staff. In another review, Johansen (2008) found that many researchers relied on non---standardized observation techniques to evaluate change. When using measures of cortisol levels, a mild to moderate symmetry between client---horse pairs was found (Yorke, Nugent, Strand, Bolen, New & Davis, 2012). These results could be random and a product of client---horse matching, history and experience of the horses, attitudes towards horses, how stressful the barn and participating in the program was, and what impact exercise of any kind has on lowering cortisol levels in human and animals (Yorke et al., 2012). Further, research needs to establish whether several diagnoses or other features, such as different activities or at what point treatment was introduced, may have an impact on the benefits, according to Cumella et

al. (2014). Other aspects that could influence results could be age of the clients, aversion to horses, motivation, or severity of problems, as well as length of time with horses and interference from parents, volunteers, or others in the setting (Hauge et al., 2013; Schultz, Remick--Barlow & Robbins, 2007; Yorke et al., 2012). As an example, young children showed improvement, while older children did not (Sole, 2005), and children with a history of intra--family violence and substance abuse tended to show the greatest improvement (Schultz et al., 2007). On the other hand, Ewing et al. (2007) argued that the reason their clients' self--esteem did not increase in comparison to earlier studies was that the clients had more severe disorders; more changes in their family lives, such as placement in foster care or death of a parent; and that participation in the study confirms their low self--esteem through stigmatization. In addition, these clients were on medication, which could have effects both on the process at hand with the horses and on the possibility to gain any effects of the treatment with horses (Ewing et al., 2007).

The type of studies that are most common are evaluation studies based on specific populations, such as at--risk adolescents and children; patients with autism, Alzheimer's disease, anxiety, attention--deficit hyperactivity disorder, borderline, dementia, eating disorders, oppositional defiant disorder, schizophrenia, substance abuse problems, trauma history, and delinquency; adolescents who have been sexually abused; women who have experienced abuse; and those with abusive parents (Bachi, Terkel, & Teichman, 2012; Bates, 2002; Kemp, Signal, Botros, Taylor, & Prentice, 2013; Dabelko--Schoeny, Phillips, Darrough, DeAnna, Jarden, Johnson & Lorch, 2014; Lentini & Knox, 2009). Problems in common to the populations mentioned are anti--social behaviors; anxiety; depression; grief; lack of communication skills, self control and social--emotional competence; post--traumatic stress; powerlessness; relationship problems; and self--harming (Kemp et al., 2013; Pendry & Roeter, 2013; Rothe et al., 2005; Symington, 2012). Nevertheless,

precautions should be made working with clients who have a history of animal abuse or fire setting or those who are medically unstable, actively psychotic, suicidal, or are using substances (Cody et al., 2011; Cohen, 2011; DeZutti, 2013; Rothe et al., 2005). In addition, considerations about clients' and staff's safety and health need to be attended to; for example, allergies, deficits in balance, skeletal injuries, and fear of horses (Kirby, 2010; Masini, 2010). Also, the staff member should be aware if clients have unrealistic expectations that may lead them to think that the horse is rejecting them, which could deepen their feelings of low self-esteem (Rothe et al., 2005). Earlier research suggests that a diagnosis doesn't always tell what a client is capable of (Roberts, Bradberry & Williams, 2004). Prejudice should not prevail; rather, the context with the horse may produce different conditions and thereby opportunities for other skills than the diagnosis suggests is possible (Carlsson, 2015).

The role of the stable, horses, and preparations of horses

The particular setting of the stable is a nontraditional therapeutic setting that could be perceived as less threatening and more engaging, as the stigma associated with treatment clinics and attending therapy is removed (Brandt, 2013; Rusell---Martin, 2006). Clients may have stereotypes and fears about traditional therapy, and some clients who have been in care, or who have spent much of their lives being assessed and bounced around services are quite wary about accessing traditional services (Donaghy, 2006; Ewing et al., 2007). The work with horses occurs in the present, natural world around us, without the artificial bonds of socially constructed norms (Porter---Wenzlaff, 2007). The non---verbal communication and the more physically demanding setting could, as an example, be preferred by men (Yorke et al., 2008). Additionally, minority populations such as Inuit could prefer this setting when it includes spiritual components and animal symbolism (Dell et al., 2011). At the same time,

the holistic approach may challenge Western cultural norms that emphasize verbal communication and de-emphasizes touch and emotional expression (Brandt, 2013).

The work with horses could almost be perceived as playing a game, and even though they discuss issues that arise from it, the client may not always see it as therapeutic. This kind of therapy can reach clients in a way that traditional talk therapy cannot, and even therapists can learn something about themselves (Christian, 2005). In these different environments, the staff has the opportunity to evaluate the client's reactions to different contexts, which opens up many opportunities for interpretation (Chardonens, 2009). However, the stable can be perceived as either an intimate, protective setting for one client, whereas for another the same setting may threaten and project stress (Bachi, et al., 2012; Yorke, Adams & Coady, 2008). Being outside in natural surroundings can be relaxing and give time off from daily stress (Bachi et al., 2012; Dabelko--Schoeny et al., 2014). Grooming the horse, for example, can provide an opportunity for the client to have the horse between him and the therapist, enabling them to talk freely without the need to sit facing the therapist (Bachi et al., 2012).

The experience of nurturing, illness, death, and birth of horses raises topics for discussion that might not be present in another milieu. Concern for the horse and humans included in the therapy can, on the other hand, give an opportunity to teach those involved to take better care of themselves (Karol, 2012). It could also be argued that the stable sets other limits that could be clearer and give comfort for both the staff and the clients (Carlsson et al., 2014). The result of the intervention could also be easier caregiving for formal and informal carers, when problematic behaviors were reduced (Dabelko--Schoeny et al., 2014). As an example, equine assisted interventions are more strongly associated with lower levels of internalizing and externalizing behavioral problems compared to more traditional classroom--based counseling activities (Trotter et al., 2008). But it is unclear whether the change in the

therapeutic environment alone or the emphasis placed on the therapeutic alliance account for the efficacy (Carlsson et al., 2014; Trotter et al., 2008).

Moving on to the horse, it is considered to be a bridge for therapeutic alliance, a catalyst for a calmer client—a co-therapist, facilitator, or a listening friend that gains attention and opens up for the experience of presence in the moment; interconnectedness of the human body and mind; awareness and exploration of feelings, thoughts and behaviors; projection possibilities; windows to a client's world; real time reaction; non-judgmental instant feedback; a pause from the client role or stigma attached to the role of the client; authenticity; increased trust; non-verbal communication; allowance to touch; opportunities for metaphor; motivation; empowering clients; and promoting empathy (Bachi, 2013; Brandt, 2013; Carlsson et al., 2014; Carlsson, 2015; Esbjorn, 2006; Ford, 2013; Kemp et al., 2013; McConnell, 2010; Pendry & Roeter, 2013; Porter-Wenzlaff, 2007). Compared to other forms of related therapies, such as dance therapy, the horse is especially highlighted as giving more obvious signals as it is larger in size, not pretending, not carrying an agenda, seems to live more in the present moment, facilitates trust more quickly and deeply, and creates a nonjudgmental space compared to humans (Ford, 2013; Frewin & Gardiner, 2005). As Vidrine (2002) highlights, horses get dirty and eat off the ground, they relieve themselves when they need to, their genitals are visible; and yet clients can interact with them on a fairly intimate basis. Humans instead use the restroom on reassigned breaks, eat at defined times, and work late into the night when our bodies and mind are beyond tired (Porter-Wenzlaff, 2007). This means, according to Porter-Wenzlaff (2007), that we as humans are less and less accustomed to attend to our natural, authentic experiences and feelings. For humans, this can cause mental illness when separated from authentic experiences and feelings (Porter-Wenzlaff, 2007).

As an example of the horse's role, the horse becomes confused and agitated when there is incongruence between verbal and non-verbal cues (Vidrine, Owen-Smith & Faulkner, 2002). Additionally, a nervous client, or one showing either no emotions or confusing emotions, will be likely to produce a horse who turns away from the halter or holds its head up too high to reach (Porter-Wenzlaff, 2007). Openness and vulnerability are more likely to elicit behavior from the horse than displays of defiance and aggression. The humans need to reconnect with their authentic selves and identify and regulate their emotions when working with horses; otherwise, the horse will remove itself or refuse to comply with the client's requests (Brandt, 2013; Carlsson et al., 2014; Cody et al., 2011; Porter-Wenzlaff, 2007). The humans are reminded of concealed thoughts or feelings, providing an opportunity to process unresolved issues (Karol, 2007). A horse who has positive experience with humans will usually seek the affection of the person who caresses him by getting physically closer, which supports emotional connection and relationships (Bachi et al., 2012). The horse is sensitive to human energy and intensity of purpose, no matter how much the person tries to disguise it (Roberts, Bradberry & Williams, 2004). If humans move too fast in direction of the horses, they often move away from the intensity of energy (Pendry & Roeter, 2013). At the same time, horses are very curious and will usually approach humans that remain calm and unaggressive (Porter-Wenzlaff, 2007).

But do horses need any preparation to be able to be all this mentioned above? Froeschle (2009) argues that sufficiently training for the horses is needed before they are used in therapy. Bowers & MacDonald (2001) highlight the question about the preparation of the horses when in some cases the horses are trained to ignore "rider's cues," such as kicks and pulls from the clients; instead they are trained to respond to cues from the staff. What views do staff have on the preparation and training of the horses? When it comes to leadership, for example, in natural horsemanship, training often takes place in a round pen (a

circle of 17--20 meters formed by a curved fence) where the horse is chased and eventually joins up with the human. The horse realizes there is no escape and when it “gives up” or is “ready to socialize” it will slowly walk toward the human and bow its head (Bowers & MacDonald, 2001). It is not uncommon that clients are encouraged to pay attention to their own feelings and reactions as well as the feelings and reactions of the horse. But what if the client has a history where they have been forced to give in or have a feeling that being in treatment is a form of giving up? Could this be counterproductive for their treatment plan? As Bowers & MacDonald (2001) mention in their study, clients have to succeed with making the horse join up in the round pen to earn the right to ride. Their results (Bowers & MacDonald, 2001) showed no significant change in self--worth, interpersonal empathy, depression, feelings of loneliness, or internal locus of control, which went totally against their hypotheses. One of their (Bowers & MacDonald, 2001) arguments was that the horses should have been evaluated in terms of their behaviors and skill levels, as they wrote horses should be predictable and reliable. This does not match previous research where it is argued that the horse's unpredictability is one of the variables in this type of treatment (Carlsson et al., 2014; Carlsson, 2015; Vidrine et al., 2002). In addition, Kelly (2014) writes about the experience of making the horse join the human in the roundpen as learning to live with lack, disruption and failure rather than to gain power and influence over others. This exercise, according to Kelly (2014), opened up clients' critical reflection and could be perceived as uncomfortable as well as a reminder of one's fragility. Depending on how one interprets the relationships, actions, and outcomes in the exercise. Finally, there needs to be consideration of the status of clients when considering preparation of horses, as well as choosing the right horse when it could be important for the outcome (Hauge et al., 2013). When using horses for clients with Alzheimer's disease or dementia, the horses were supposed to have excellent ground manners, no foot movement when startled, be non--reactive to unusual stimuli, tolerate loud

noise, and not startle when exposed to rapid movement (Dabelko---Schoeny et al., 2014). Hauge et al. (2014) argue, however, that to ensure positive experience during EAA and EATs, the welfare of the horse needs to be considered. The horse's ability to move freely and interact with other horses has been found important for welfare. In turn, this might have an influence on the interaction between horse and human, as horses living in packs show calmer responses to human contact (Hartmann, Sondergaard & Keeling, 2012; Lesimple, Fureix, LeScolan, Richard---Yris & Hausberger, 2011; Sondergaard & Ladewig, 2004). Interestingly, there seems to be little difference in how humans interpret a horse's temperament and emotions, regardless how well they know horses (Momozawa, Ono, Fumio, Kikusui & Mori, 2003; Rusell, 2003).

Finally, the equine's characteristics alone do not foster gains for clients. The staff need to help the clients recognize analogies between horse---human interaction to those between humans in various social contexts and engage clients in practice and reflection within the context (Bachi, 2014; Kelly, 2013; Pendry & Roeter, 2013).

Considerations about the professionals, therapeutic alliance, and attachment

We now move on to the professional's role as well as the role of attachment theory as a possibility to gain insight in these settings. If a client expresses his or her anger and frustration by kicking or hurting the horse, the staff must protect the horse, but also must make sure not to allow his or her own anger with the client to prevent the use of this enactment towards therapeutic progress (Karol, 2007). There is a myriad of ways the staff can respond therapeutically to this kind of situation. One staff member might view this moment as a possibility to work on destructive patterns and explore how this might happen in the client's human relationships, and then explore alternative and more successful means of communication (Karol, 2007; Porter---Wenzlaff, 2007). Another staff member might focus

on the client's need to develop the ability to empathize and feel compassion (Karol, 2007). Or as Symington (2012) suggests, is personal safety something the client is concerned about? Still another staff member could attempt to explore the sources of the client's anger, guided by non-violent communication (Rosenberg, 2003). Cody et al. (2011) go further and argue that it is mandatory to become a "beginners mind," trusting the horse and one's own intuition when being a professional in this kind of work. In addition, self-esteem cannot come from others but must come from within, which means that a lot of work needs to be done by the client him- or herself (DeZutti, 2013). And as Christensen and Jacobsen (1994) point out, personal change that does not rely on experts may create a sense of personal autonomy or personal empowerment.

The staff could, however, be seen as instructors and educators, as well as mentors and role models for the participants (Ewing et al., 2007). The staff must also be careful to balance their roles as instructors and therapists, not focusing too much on the client's development as a rider or the client's education about horses (Ewing et al., 2007; Karol, 2007). Later research (Carlsson et al., 2015) supporting this thesis has found that if the staff give instructions and advice similar to traditional equestrian sports, in combination with viewing the horse as an object, equine assisted social work or therapy is not facilitated. The essence of equine assisted work is eased by staff members when they focus on the client's emotions and help the client understand that the horse is acting in response to the client's and staff's behavior through mentalizing and enacting emotional labor in regarding the horse as a subject (Carlsson, et al., 2015).

Further, strong therapeutic alliances have proven more effective as variables in client outcomes than treatment techniques (Hougaard, 1994). Yorke et al. (2008) suggest parallels between good equine-human relationships and good therapist-client relationships, both in terms of the nature of the bonds that are formed and their healing qualities. Hougaard (1994)

divides the therapeutic alliance into two main areas: the personal relationship, which is socio--emotional, and the collaborative relationship, which is task---oriented. The themes found by Yorke et al. (2008) indicate that the intimacy/nurturing component of the equine---human bond is socio---emotional and similar to traditional characteristics of therapist---client relationships, such as mutual liking, warmth, trust, and respect. The partnership and utility bond themes found in the same study are collaborative and task---oriented, according to Yorke et al. (2008). Their findings suggest that the depth of the emotional connection the riders have with their horses seem to go beyond the intimacy achieved in most therapist---client relationships (Yorke et al., 2008). A difference is the perceived accepting and nonjudgmental nature of horses compared to humans. Furthermore, physical affection is an additional component, something not ethically possible in therapist---client relationships when most Western psychotherapies have avoided touch (Yorke et al., 2008). As Vidrine et al. (2002) experienced in their study, even boys who were seldom seen expressing physical affections with humans were observed hugging and kissing their horse. However, later studies imply that there could be clients that have a closer relationship with the therapist, as well as those who have their closest relationship to the horse (Carlsson, 2015). The partnership of the human---equine bond can reflect the essence of what is required in a therapeutic endeavor: agreement on task and goals as well as collaboration, but that could also be absent and instead be seen in the relationship between client and staff (Carlsson, 2015).

Furthermore, these rich settings offer metaphors that can be cultivated in a way that can bridge the internal and external worlds of the client (Karol, 2007). Equine assisted therapy or social work relies, however, on both the therapeutic relationship between the staff and the client, but it is also fueled by the client's attachment to the therapeutic horse (Karol, 2007). As highlighted by Bowers & MacDonald (2001) many programs including animals

have been developed with hope of creating an opportunity to form an alternate secure attachment base with another living being. Important to highlight is that the attachment to the horse sometimes comes first, building a bridge for a relationship with the staff, and in other cases it is the attachment to the staff that is the foundation for the therapeutic alliance (Carlsson, 2015). Bachi (2012) argues that part of the gap between practice and knowledge might be understood within the framework of attachment theory. Bachi (2014) writes that the following questions could offer insight about the underlying processes of change: Do therapy horses serve as attachment figures? To what extent do horses exhibit the features of an attachment figure? What are the characteristics of people who are able to attach to horses? What situations enable attachment bonds between humans and horses to develop? Karol (2012) also argues that the method not only relies on the therapeutic relationship with the staff, but is also fueled by the client's attachment to the horse. There are studies showing that one of the most common responses by clients is regarding the connection to the horse and how much they enjoyed being together with "their" horse (Maujean et al., 2013). Siporin (2012) argues, however, that the therapy horse is more than a large teddy bear or transitional object. The horse is a flight animal faced with a human/predator and the horse's concerns and emotions must be attuned to (Siporin, 2012). Even though petting the horse could be the most frequent way of initiating contact with the horse (Hauge et al., 2013), an emotional bond is created through closeness, petting, and grooming (Bachi et al., 2012).

Later studies (Carlsson, 2015) showed that there are almost as many different constellations of relations between human---human and human---horse as there are humans and horses. Knowing that there are different internal attachment working models for each person highlights the complexity of answering those questions mentioned above by Bachi (2012). Despite this, Bachi (2013, 2014) concludes that a number of areas of attachment theory such as safe haven, affect mirroring, reflective functioning, and nonverbal---

communication were applied not only for the clients but also for the staff. However, few studies raise the horse's impact for the staff; mostly they focus on the impact for the clients, even though there are implications that even the staff is affected by the horse's presence (Carlsson et al., 2014; Carlsson et al., 2015). In this context it is worth mentioning the issue of choosing a horse when the tendency is to choose a horse that reflects one's description of self, a person in one's life, and core issues (Rothe et al., 2005; Symington, 2012; Trotter et al., 2012). Choosing a horse from a herd or from the stable provides opportunities for client and staff to further identify issues for the session as well as for the staff to formulate appropriate activities for the issues to be understood (Mallow, Mattel & Broas, 2011), adding consideration of the profile for each disorder to provide for the decision-making process or techniques utilized in each session (Rothe et al., 2005). Finally, the interaction between the client and the horse needs to be defined if it is voluntary or not for both client and horse, because if it is, a mutually deep bond can easier be formed (Symington, 2012). Additionally, the goal could be rescuing the horse at the same time as helping the client (Bachi, 2013; Mallow et al., 2011).

Discussion

This study concludes that there are several definitions and different content both regarding theoretical aspects and how professionals choose to manage the intervention. Results highlight the complexity in practice, making it difficult to evaluate. Which role do the stable, horses, preparation of horses, professionals, therapeutic alliance, and attachment play in these interventions? The focus of efficacy in this field has led to less knowledge about the process. A reflection on research focusing on effectiveness is that participants and staff perceptions sometimes exceed statistical evidence (Selby & Smith-Osborne, 2013). It is possible that expectations about the efficacy of the program are reflected in the reported results by relatives or clients (Pendry & Roeter, 2013)? Further, most who research human---

horse relations are themselves biased and many practitioners are very enthusiastic about the field (Esbjörn, 2006). It is possible that some are driven and influenced by their own relationships with horses (Frame, 2006). Others are focusing exclusively on human experiences instead of understanding animals as sentient beings with needs of their own, not just tools for humans to use (Taylor, Fraser, Signal & Prentice, 2014). In addition, Selby and Smith---Osborne (2013) argue that national context (policies, healthcare systems, local resources, provider regulation patterns) needs to be considered. As Yorke et al. (2012) argue, future research needs to focus on the process as well as the outcomes. It could be argued that when the therapeutic relationship is of most importance in therapy or social work, and the method has less impact on the effects (Duncan et al., 2003; Fulton, 2004; Orlinsky, Ronnestad & Wiullutzki, 2004; Kim, Wampold & Bolt, 2007), the focus should be on what effect this kind of work has on the therapeutic relationship between client and staff.

Further, Klontz et al. (2007) argue that the work integrates the horse into an already established approach which highlights that future research in this area needs to examine the degree to which the inclusion of horses affects the treatment approach, and if so, in what areas. When a broad range of techniques and measurement instruments are used in different clinical populations, as well as different duration of time in the program, comparison is hard to achieve (Ewing et al., 2007; Frederick, 2012; Graves, 2011; Pendry, Carr, Smith & Roeter, 2014; Selby & Smith---Osborne, 2013). An answer to this problem could be standardization of terminology, practice, and language used to communicate methods and theories.

Additionally, current research has not categorized all the ways in which the horses communicate, and horses differ in their temperament, ability to focus, and how the environment affects them. Already in the 1960s, Levinson (1969) insisted that the therapeutic intervention should be carefully planned and simply giving access to an animal to solve client problem was not a solution. Also, research must consider the differences between animals

chosen (Bachi, 2014). There is also a need for in---depth studies on which preparation horses need to go through when some work with wild horses (Esbjörn, 2006). Are there certain characteristics of the horses that are preferable? It would also be useful to explore the physiological responses that occur when clients interact with horses in a therapeutic setting (Selby & Smith---Osborne, 2013), even when the focus is on psychological aspects, and vice versa. It could also be relevant to discuss whether attachment to and loss of the horse could be a factor leading to negative findings. There seems to be a need for using a variety of research methods to capture the complexity. Interdisciplinary research groups could be an answer where measures of heart rates, cortisol levels, and brain activity are also included (Bachi, 2014; Cantin & Marshall---Lucette, 2011; Lentini & Knox, 2009). Horses could open up new perspectives for the clients, but the therapists are the central piece of the process when in charge of the therapy or social work. Additionally, there is a need for considering the effects for staff, not only for clients. It could even be argued that positive effects depend on circumstances outside therapy (McCullough, 2011). Another aspect of concern is if the therapy or social work tends to be more of a recreational activity, and therefore limits could possibly be confused or blurred, as argued by Lentini and Knox (2009).

However, analyses of Western assumptions about the development of evidence are necessary (Chalmers & Dell, 2011). Which knowledge is considered valid evidence? Studies with a post---positivism paradigm are concerned with effects and those with a constructivist paradigm tend to primarily be concerned about the process and the meaning of equine assisted work (Chalmers & Dell, 2011). Looking to aboriginal understanding, knowledge building is not only situated in the physical space, but also in a metaphysical space. Therefore Chalmers and Dell (2011) suggest that the participatory paradigm, principled on a reflexive process of participation and action, is one step that could serve as an epistemological bridge between Western and Aboriginal epistemologies in future research. Research must recognize

the cultural reverence of the horse, as in system theory, and question the Western biomedical approach, which primarily focuses on an individual independent from others and surroundings (Bateson, 1972; Bronfenbrenner, 1979; Dell et al., 2011; Garcia, 2010).

Future research should attempt to elucidate which components are central to program success. As an example, Pendry and Roeter (2013) ask: is it grooming the horse, riding the horse, being outside in nature, or being in the presence of horses or other clients that drives the program's effects? Are there any differences in working with a single horse or several horses or working in heterogeneous or homogeneous client groups or individually? What if relatives, teachers, school psychologists, or social workers remain at the premises throughout each session, or if they just transport the clients to the session? In some programs, the client's last session includes showing their achievements for their parents (Frame, 2006; Pendry & Roeter, 2013); how should researchers consider these aspects in future research? Finally, researchers should consider having control groups that are on a waiting list or having a control group that attends another alternative treatment or both (McCullough, 2011). This review ends with more questions than answers and there is a responsibility both for researchers and practitioners to attend to these concerns. Maybe one solution is to conduct research in collaborative projects with practitioners and clients to reach the tacit knowledge using reflection as a tool (Andersen, 1997; Rautiainen & Seikkula, 2010; Rautiainen & Seikkula, 2009).

This narrative review has limitations when each specific investigation has not been critically reviewed. Another limitation is that only English literature has been reviewed. However, when earlier studies indicated a discrepancy in effects (Ewing et al., 2007; Pauw, 2000) focus has been on what could be considered clinically meaningful. The purpose has been to shed lights on gaps and contradictory results to assist practitioners and researchers

with perspectives on complicated issues as the discrepancy in effects shown in earlier studies. Therefore, this study has attempted to be comprehensive, rather than including only studies of the highest quality

Contribution to Social Work Practice and Research

Because therapy and social work with horses is expensive and time consuming, it could be argued that it should be limited to clients who are not reached by conventional methods or have special needs (Bowers & MacDonald, 2001). As Vidrine (2002) argues, therapy with horses may be particularly effective in treatment of refractory and guarded patients. Or as Lentini and Knox (2009) conclude, this kind of social work or therapy could be of special interest for “therapy---wise” patients, hardened youths and gangs, clients with eating disorders, or neglected children who do not respond to typical office therapy. At the same time, some studies indicate that equine assisted therapy can be less time---intensive and more intimate, focused, and intense; therefore, it is a more cost---effective alternative to traditional therapy (Meinersmann, Bradberry & Bright---Roberts, 2008). The horse can act as a catalyst for the development of trust between client and staff, as well as the inner world being expressed through the client’s interaction with the horse (Karol, 2007). Also worth mentioning is that the session with the horse could be a welcome relief from usual preoccupations and act as a glimpse into what recovery could be like, as well as opening up for a process to start (DeZutti, 2013; Ewing et al., 2007; Helm, 2009). These accomplishments can be the foundation for this kind of work rather than the goal of the method, as Karol argues (2007), which raises questions about which variables should be evaluated and which variables should be viewed as part of the method. However, it could be argued that this is not a method by itself. Instead it is often described as a complement to other approaches or methods. This raises an important issue when focus seems to be on

evaluating EAT, EFT, EAL, and EASW as a method. What is there to evaluate? Should focus be on the method, or should researchers be more concerned to evaluate the staff, the ones that could counteract as well as promote the possibilities of the horses (Carlsson et al., 2015)? In addition to this argument, there are studies in Selby & Smith---Osborne's (2013) review that have reported possible harmful significant outcome. Are they caused by the "method" the horse or the staff? As an example, not knowing what in the process that leads to a reduction in anxiety makes it hard to decide what impact the staff has (Holmes et al., 2012). As Karol (2007) points out, there are few master or doctoral---level psychologists, clinical social workers, or psychiatrists that work with horses. More common are people who know more about horses rather than the theory and practice of psychotherapy or social work, as in EAA (McConnell, 2010). But even though the staff members are health care professionals, they in turn have different ways of relating and caring for their clients, as well as different driving forces that made them start working with horses. There is also a need for knowledge about the changed environment when it alone could provide the results (Trotter et al., 2008). As in the study by Dell et al. (2011), the practices were built on the view that balance with earth, honoring diversity, harmony in life, respect, love, and care for the horses were most important in the program. Additionally, according to Aboriginal worldview, the four cornerstones of treatment are physical, mental, spiritual (inner spirit is intertwined with family, collective community, and the land), and emotional (Dell et al., 2008; Dell et al., 2011). The view of the environment and the horses is of importance as well as the view of the treatment approach, clients, gender, ethnic background, socioeconomic status, cultural identity and problems at hand (Cohen, 2011; Graves, 2011; Taylor et al., 2014). As an example, Lawrence (1998) writes, that the Native American "*sees little distinction between people and animals and does not make the sharp separation between them that is characteristic of Western culture. The horse, like other animals, is viewed as occupying a*

vital role in the great circle of living creatures, not as representing a lower rung on the hierarchical ladder (or chain) of being” (page 137).

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