Equine-Facilitated Psychotherapy: The Gap between Practice and Knowledge

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Abstract
Equine-Facilitated Psychotherapy (EFP) is widely used, and the uses to which it can be put are still being developed. However, existing knowledge about this field is insufficient, and most of the research suffers from methodological problems that compromise its rigor. This review will explore research into the linked fields of Animal-Assisted Therapy and Equine-Assisted Activities/Therapies (EAA/T) related to physical health. Existing knowledge of mental, emotional, and social applications of EAA/T is presented. Evaluation studies in the subfield suggest that people benefit from interventions with horses. However, these studies suffer from fundamental problems, such as small sample size and lack of control groups. Naturalistic inquiry about theoretical aspects highlights the fundamental role that human-horse relations play in EAA/T, but these studies exhibit deficiencies in theory development. A multimethod approach could promote knowledge development for EFP. Suggestions for future research concern methodological solutions to improve evaluation studies, use of grounded theory method to develop theory, as well as applying attachment theory to the human-horse context, which may offer insight about the underlying processes for change.

Keywords
Animal-Assisted Therapy (AAT), Equine-Assisted Activities (EAA), Equine-Facilitated Psychotherapy (EFP), human-horse relations

Background
Equine-Facilitated Psychotherapy (EFP) is a form of Animal-Assisted Therapy (AAT) used to treat human psychological problems that employs horses in and around the natural surroundings of the stables. Despite the increasing number of professionals and organizations that offer this innovative therapy, EFP lacks a firm theoretical and research base.

Discussions about how nonhuman animals can be involved in the therapeutic process were absent from the professional literature until the 1960s.
Levinson (1962, 1978), who was the first to address professional concepts in the field of AAT, asserted that a connection to animals, especially during childhood and old age, positively affects the human condition (see also Kruger, Trachtenberg, & Serpell, 2004; Levinson & Mallon, 1997). Although Equine-Assisted Activities and Therapies (EAA/T) are relatively new fields, references to recovery processes in the context of human-equine relations appear in the writings of Orebasius, Galen, and others from Greco-Roman times (Butt, 2001). Hartel pioneered the concept of Therapeutic Riding in the 1950s (Butt, 2001).

Most references to EAA/T emphasize its physiological benefits (Vidrine, Owen-Smith, & Faulkner, 2002; Taylor, 2001; DePauw, 2000; Baker, 1996). However, an independent branch of EAA/T founded in the 1990s, called Equine-Facilitated Psychotherapy (EFP), focuses on the mental and social benefits. The Professional Association of Therapeutic Horsemanship International (PATH Intl.) defines EFP as an interactive process in which a licensed mental health professional working with or as an appropriately credentialed equine professional, partners with suitable equine(s) to address psychotherapy goals set forth by the mental health professional and the client (PATH Intl., 2012). Notably, EFP is not appropriate for all people because of safety issues associated with horses and the open environment in which this therapy takes place (PATH Intl., 2012). EFP is often confused with Therapeutic Riding and hippotherapy. Therapeutic Riding is an equine-assisted activity that teaches people with special needs about horsemanship and how to ride. Hippotherapy is an equine-assisted therapy related to physiotherapy, occupational therapy, and speech therapy. In contrast, EFP helps people challenged by emotional and mental health conditions. It promotes personal exploration of feelings and behaviors and allows for their clinical interpretation. EFP requires an ongoing therapeutic relationship with clearly established treatment goals and objectives that the therapist and client develop. An example of an EFP approach is for a client to observe and talk about the behavioral dynamics in a horse herd. Viewed as projection, this offers a window into the client’s internal world. Together, the client and therapist explore these projections (Bachi, Terkel, & Teichman, 2012).

Since the 1990s, EFP has grown rapidly in the United States and Europe. More than 700 centers in the United States provide at least one form of EAA/T. In addition, several internationally recognized associations serve thousands of professional members and clients. Two of the leading associations, PATH Intl. and Equine-Assisted Growth and Learning Association (EAGLA), employ different practice models. Over 80 therapeutic boarding schools and numerous residential treatment facilities offer EAA/T as part of their regular
program, and institutions offer undergraduate and master's degrees in the fields of EAA/T. In 2004, the Horses and Human Research Foundation opened with a mandate to fund research in EAA/T. Currently, health insurance pays for the services provided by mental health professionals who offer this kind of therapy (Hallberg, 2008).

Problem Formulation

Most studies of EAA/T focus on its physical applications (Vidrine et al., 2002; Taylor, 2001; DePauw, 2000; Baker, 1996). In contrast, limited research exists regarding mental, emotional, and social components that EAA/T addresses (Bachi et al., 2012; Kaiser, Spence, Lavergne, & Vanden Bosch, 2004; Bizub, Joy, & Davidson, 2003; Burgon, 2003; Gatty, 2001). To date, these studies rely on individual researchers' personal doctrines rather than on an overall “EFP theory” (Bachi et al., 2012). Furthermore, the quality of many EAA/T studies requires improvement. Because EFP programs are expanding, researchers interested in utilizing horses for therapeutic purposes should evaluate EFP's efficacy, determine for which populations and diagnoses it is appropriate, and develop theoretical knowledge to guide this type of intervention. Rigorous research is fundamental for the physical and emotional safety of clients and necessary to bridge the gap between the expansion of EFP practice and limited knowledge of the field.

Published literature about EFP consists primarily of anecdotal reports. Many sources identify the bond that people experience when they are close to a horse as the central factor in the change process. For example, Hallberg (2008) claims that the relationships children have with horses can be life-altering. Through these relationships, children can learn to form attachments, show love and affection, experience intimacy, and understand what it means to nurture another being. Another example is the Wild Horse Inmate Program (WHIP), which rehabilitates inmates through the process of learning to train wild horses. The human-animal relationship that develops in this situation transforms both inmates and horses, preparing inmates for life beyond the correctional facility (Dalke, 2008). These anecdotal reports and existing studies suggest a common trend and illustrate the need for a unique theory for equine therapy, rigorous research to examine the human-horse bond, and evaluation of EAA/T effectiveness.
Literature Review

As mentioned earlier, EFP is widely used and its uses are being further developed. Educational institutions and insurance companies are increasingly recognizing this form of therapy. However, existing knowledge about this field is insufficient, and the research that does exist has methodological problems that compromise its rigor. This review will begin with an exploration of knowledge development in the parent field of Animal-Assisted Therapy; studies of AAT have shown that interventions with animals can benefit people in various ways. The review will then examine the existing knowledge in EFP’s sister fields, EAA/T related to physical elements, where horses are involved in rehabilitation that is complementary to medical intervention. These studies show that people can benefit from interventions with horses specifically. Finally, the review will present existing knowledge of mental, emotional, and social applications of EAA/T. Evaluation studies in the subfield suggest that people benefit from interventions with horses. However, the quality of these studies is poor.

Studies that explore theoretical aspects highlight the fundamental role human-horse relations play in EAA/T. Nevertheless, these studies also have methodological problems and highlight the deficiency in theory development in these fields. Some studies have applied attachment theory to the human-animal context and yield insights into the unique roles animals play in human lives. Attachment theory could provide an understanding of the human-horse bond. Studies of attachment in the AAT setting are scarce, and the study of an attachment that is part of the human-horse bond is nonexistent. It is unclear whether or how the human-horse bond could be understood through attachment theory.

Animal-Assisted Therapy (AAT) Research

Animal-Assisted Therapy (AAT) is an umbrella term that refers to therapies that involve animals. From its inception, AAT research relied on anecdotal reports, pilot studies, or poorly designed studies (Beck & Katcher, 1984). Most existing studies of human-animal interactions examine the relationship between the keeping of companion animals and human health (e.g., Freidmann, Thomas, Stein, & Kleiger, 2003; Enders-Slegers, 2000; Raina, Waltner-Toews, Bonnett, Woodward, & Abernathy, 1999), rather than the relationship between AAT and human health.

A growing body of knowledge supports the practice of AAT. A meta-analysis examined eleven studies published between 1978 and 1998 to determine the
efficacy of AAT among children (Moston & Fedoriw, 1998). This analysis included studies that focused on interventions with dolphins, dogs, and horses as therapeutic modalities. These therapies resulted in benefits such as increasing a child’s motor response and improving a child’s social interactions and self-concept. At the very least, the animals were excellent motivators during the therapeutic process. However, concerning interventions with dolphins specifically, other reviews of studies prior to 1999 (Humphries, 2003; Marino & Lilienfeld, 1998) demonstrate that there is no credible scientific evidence of the effectiveness of the intervention. Moreover, an update of the methodological status of dolphin-assisted therapy (Marino & Lilienfeld, 2007) examined five peer-reviewed studies published between 1999 and 2007 and found that all of them were methodologically flawed and plagued by several threats to both internal and construct validity.

In addition, 52 research studies appearing between 1988 and 1993 in the field of AAT were reviewed by Odendaal (2004), who concluded that animals healed humans physiologically and psychologically. Another meta-analysis of five published studies between 1984 and 2000 (Souter & Miller, 2007) found that dog-assisted activities/therapies are associated with fewer depressive symptoms that are both statistically significant and large enough to be of practical significance (medium-effect size). Furthermore, a meta-analysis of 49 studies between 1984 and 2004 (Nimer & Lundahl, 2007) found that AAT with various animals was associated with moderate-effect sizes in improving outcomes in four areas: autism-spectrum symptoms, medical difficulties, behavioral problems, and emotional well-being.

By providing evidence that AAT was successful in improving human lives, several studies had a significant impact on the development of the AAT field. Animals helped increase autistic children’s level of social response to humans and animals in the therapeutic setting (Campbell & Katcher, 1992). AAT resulted in significantly greater use of language and significantly greater social interaction among children with autism in sessions incorporating animals when compared to sessions using exclusively standard occupational therapy techniques (Sams, Fortney, & Willenbring, 2006). For people with physical or mental challenges, animals offer the same level of companionship and attention in social interaction as another human (Odendaal & Meintjes, 2003; Odendaal, Johnson, & Meadows, 2002; Odendaal, 1981, 1989, 2000). The idea that animals can be exchanged for humans in certain situations is at the core of their therapeutic value. And, as a result of an American Heart Association study indicating that even short-term exposure to dogs improved cardiopulmonary pressures, neurohormone levels, and anxiety in patients hospitalized with heart failure, animals have become part of treatment teams in hospitals and nursing homes (Cole, Gawlinski, Steers, & Kotlerman, 2007).
Horses are rarely mentioned in studies of AAT or the human-animal bond (Hallberg, 2008). This may be because working with horses is unique and complex and requires special training and knowledge. Consequently, research on therapy that involves horses usually relates solely to the fields of EAA/T, rather than AAT.

**General Review of EAA/T Studies**

An overview of studies in the general field of EAA/T reveals that interventions with horses benefit humans in various ways. One of the milestones of knowledge development in the fields of EAA/T is a survey of empirical studies and programs that were conducted between the mid-1950s and 1986 (DePauw, 2000). This survey revealed a gap between practice and empirical research and proposed to increase empirical evidence of EAA/T benefits and publish them, develop tools to measure the unique features of EAA/T, identify effective interventions, and develop a database of studies in these fields.

Research into EAA/T has expanded since this survey but focuses primarily on the physiological, rather than the psychological, effects of therapeutic riding. The majority of studies measure balance, movement planning, sensual integration, muscular tone, coordination, stability, and additional physiological aspects. Some studies suggest that the benefits of horseback riding include improved balance in children with cerebral palsy (CP) (Bertoti, 1988) and mental retardation (Biery & Kauffman, 1989); improved arm-leg coordination (Brock, 1988); improved balance, mobility, and posture of people with physical challenges (Copeland, 1986, 1989) and developmental delays (Walsh, 1989); and reduced spastic muscle tone of people with CP (Glasow, 1986). In addition, a number of studies that considered the nonphysiological aspects of riding revealed that horseback riding has a positive impact on verbal development (Dismuke-Blacky, 1990) and on psychosocial skills (Good, 1986). Findings relevant to EFP are that people with scoliosis greater than 30 degrees or hip instability should not mount a horse (Tebay & Schlesinger, 1986).

**Studies of Mental, Emotional, and Social Features of EAA/T**

Several studies have evaluated the mental, emotional, and social factors that EAA/T addresses, and some suggest that various populations benefit from interventions with horses. However, deeper examination reveals fundamental problems in the quality of these studies. We explore three types: studies that evaluate interventions and demonstrate how various populations benefit from
EAA/T, evaluation studies that are categorized according to type of problems that are identified in them, and studies that explore theoretical aspects.

**Evaluation Studies Demonstrating EAA/T Benefits for Various Populations**

EAA/Ts apparently serve diverse populations in terms of symptomatology, such as adult female survivors of abuse (Meinersmann, Bradberry, & Roberts, 2008), cancer survivors (Cantril & Haylock, 2007), people who are recovering from trauma (Yorke, Adams, & Coady, 2008), and nursing students (Roberts, Bradberry, & Williams, 2004). However, most of these studies are inconclusive, as they fail to use a control group. EAA/T studies that evaluate interventions with such a wide variety of populations help us to recognize the need to develop knowledge that is specific to each population.

Riding therapy increased adult participants’ confidence, self-esteem, and promoted social interaction, which were all skills that they were able to transfer to their daily lives (Burgon, 2003). Therapeutic riding by fifth- and sixth-grade girls with emotional and behavioral needs resulted in significant improvement in social acceptance, stability of close social relationships, and general self-perception (Krawetz, 1993). Therapeutic riding intervention for adolescents diagnosed as antisocial improved their self-perception (Emory, 1992). Therapeutic riding by adolescents with special educational needs did not improve their self-concept (except among younger adolescents) but was correlated with a decrease in behavioral problems (Cawley, Cawley, & Retter, 1994). EFP over a seven-month period suggested a (nonsignificant) trend for positive change in self-image, self-control, trust, and general life satisfaction of at-risk adolescents in a residential treatment home, as compared to a control group that showed no change (Bachi et al., 2012). Furthermore, a one-year follow-up of these participants demonstrated improvement in social integration, fewer offenses, and decreased drug use. EAP improved scores on the Children's Global Assessment of Functioning (GAF) Scale for a group of children who had experienced intrafamily violence over an 18-month period (Schultz, Remick-Barlow, & Robbins, 2007). Though there was no control group and the improvement in GAF scores was not statistically significant, there was a statistically significant correlation between the percentage improvement in the GAF scores and the number of sessions given. Furthermore, children in the group who had a history of physical abuse and neglect had a statistically significant greater percentage improvement in GAF scores after treatment than those who did not have a history of abuse and neglect.

Comparison of pre- and post-treatment scores for behavior and psychosocial assessment of children identified as being at high risk for academic and/or social failure found that Equine Assisted Counseling (EAC) made
statistically significant improvements in 17 behavior areas, whereas a classroom-based counseling group showed statistically significant improvement in 5 areas (Trotter, Chandler, Goodwin-Bond, & Casey, 2008). Between-groups ANCOVA indicated that the EAC showed statistically significant improvement in 7 areas when compared directly to classroom-based counseling. Repeated measures ANOVA of the EAC participants’ social behavior ratings showed statistically significant improvement (i.e., increases in positive behaviors and decreases in negative behaviors) as a result of the intervention.

Methodological Problems in EAA/T Evaluation Studies and Solutions

Some evaluations have methodological problems and demonstrate the need to improve studies in order to develop superior knowledge to support EAA/T practice. They have fundamental problems such as sampling methods and small sample size, lack of control groups, limited duration of evaluated interventions, inconsistency between the findings and the feelings and observations of participants and staff, overgeneralization, and inconsistency between the definition of the intervention and the evaluated intervention. These problems could be addressed by various methodological improvements (see Table 1).

Table 1. The Methodological Problems Found in Studies of EAA/T and Optional Solutions to These Problems

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<th>Problem</th>
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<td>Sampling and sample size</td>
<td>Any given EAA/T program typically treats a small, heterogenic, convenience sample; a study could employ coordination among participants from various EAA/T programs.</td>
<td>Bizub et al., 2003; Gatty, 2001</td>
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<td>Lack of control groups</td>
<td>In studies that include measurements prior to and post interventions, the experimental group can serve as its own control, for example, by implementing single-subject design methodology. Various issues such as order effects, where the sequence of the intervention or treatment affects what results, must be avoided.</td>
<td>e.g., Kaiser et al., 2004; Bizub et al., 2003; Burgon, 2003; MacDonald &amp; Cappo, 2003; Bowers &amp; MacDonald, 2001; Gatty, 2001; Cawley et al., 1994; Kazdin, 1982</td>
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<th>Problem</th>
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<td>Short duration of evaluated intervention</td>
<td>Extending the duration of the evaluated intervention could influence whether or not the findings would be statistically significant and whether or not the change would be profound.</td>
<td>Bachi et al., 2012; Ewing, MacDonald, Taylor, &amp; Bowers, 2007; Frame, 2006; Kaiser et al., 2004; MacDonald &amp; Cappo, 2003; Bowers &amp; MacDonald, 2001</td>
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<td>A gap between what the findings indicated and what the participants and staff felt and observed</td>
<td>Such a problem, which relates to a small sample size, might be an outcome of the instruments that measured the impact of the intervention. It could be addressed by developing tools that would be especially designed to measure the unique effect and features of EAA/T interventions. Another way of addressing these issues is by conducting qualitative studies that look at the experiences from subjects’ perspectives and staff observations.</td>
<td>Hayden, 2005; Vidrine et al., 2002; Bowers &amp; MacDonald, 2001</td>
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<td>Misuse of concepts and inconsistencies between definitions and evaluated interventions</td>
<td>These problems highlight the importance of raising awareness of researchers to the differences between various EAA/T interventions and the need to develop studies that are more consistent between and within studies in their use of concepts.</td>
<td>Kaiser et al., 2004; MacDonald &amp; Cappo, 2003; Bowers &amp; MacDonald, 2001</td>
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Studies That Explore Theoretical Aspects of EAA/T

Only a few studies propose a theoretical basis for EAA/T or explore the unique features that underlie these interventions. Studies that look into the practices of professionals who conduct EFP analyze conceptual and theoretical
frameworks that guide practitioners in this field. One such study explored the practices of therapists using EFP to treat adolescent depression (Frame, 2006). Respondents perceived that interactions and exercises with the horses provided feedback mechanisms, in addition to object representations of past and current relationships through which therapeutic change could take place. Cognitive behavioral therapy, experiential therapy, Gestalt therapy, and object relations theory were all cited as theoretical or clinical approaches in EFP.

Another qualitative study sought to determine the theory that underlies the practice of professionals who perform EFP with various populations (Esbjorn, 2006). Through a combination of heuristic and grounded theory methods (GTM), the researcher found that psychotherapists implement EFP using a variety of models. However, there was substantial agreement regarding what the equine brings to the therapeutic encounter: unique equine attributes, opportunities for metaphor, and relational aspects. The participants agreed that this approach might be beneficial to a large spectrum of populations. Many clinicians alluded to transpersonal benefits including somatic aspects, a calming effect, and equines increasing clients’ attentiveness and their being present in the moment (Esbjorn, 2006).

These studies suggest that the human-horse interaction has a fundamental role in EFP because of certain features like relational aspects, metaphor, and feedback. A unique pilot study considered the human-horse interaction by examining physiological changes in the subject and the horse. It tested heart-rate variability (HRV) in both human and horse subjects while they interacted (Gehrke, 2006). Electrocardiograph (ECG) recorders indicated increased, coherent HRV patterns for both humans and horses when they were in close, calm contact. The researcher suggested that such HRV patterns resulted from positive emotions that facilitated brain function. This study was innovative because of its measurement tools and because it explored the mind-body connection in a human-horse relationship. It reveals insight into the human-horse bond, frequently seen as the fundamental feature in theory of EAA/T.

**Suggestions for Future Research: Applying Attachment Theory to Human-Animal Context**

Studies have shown that relationships with companion animals can physically and psychologically benefit their human caretakers (Crawford, Worsham, & Sweinehart, 2006), and many people relate to their companion animals as close family members (Phillips Cohen, 2002). This ability of humans to bond so closely with animals is a foundation of Animal-Assisted Activities and Therapies (AAA/T). Attachment theory may offer insights into the formation of strong relationships that can also be applied to the human-animal bond.
In one study that considered attachment theory, the researcher suggested that people may have different internal working models for their attachment with people and their attachment with animals (Endenburg, 1995). These findings suggest a need to learn whether or not attachment theory can help understand patterns of attachment to animals. Moreover, it raises the question of whether or not other components related to the attachment to animals may provide a therapeutic bridge. The relevance of attachment theory to equine therapy requires further investigation.

Only a handful of studies regarding attachment to animals exist within settings of AAT interventions. One such study compared the ability of a living dog versus a robotic dog to help elderly patients overcome loneliness (Banks, Willoughby, & Banks, 2008). Here, the researchers questioned whether or not attachment is a mechanism that can reduce loneliness. Other studies used attachment theory to explore the unique role animals play in the lives of humans. One researcher compared human attachment to dogs to attachment to significant others (Kurdek, 2008) and found that dogs exhibited the feature of proximity maintenance as well as fathers and siblings did. Differences in the closeness of relationships with dogs and humans were minimal for subjects with high levels of attachment to their dogs. Attachment correlated positively to factors such as involvement in the care for the dog and the extent to which the dog met the subject's needs for relatedness.

Part of the gap between practice and knowledge of EFP might be understood within the framework of attachment theory by examining questions such as: To what extent 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 have strong attachments to horses? What situations enable attachment bonds between humans and horses to develop? What is the relationship between the attachment patterns of humans to horses and the attachment patterns of humans to humans? Exploration of the human-horse bond and the attachment to horses through such questions may offer insight into the underlying processes of change.

Discussion

A number of EAA/T studies reveal various benefits for a variety of populations. Nevertheless, much of the accumulated research has methodological problems. The required task is to conduct more rigorous studies that will
evaluate EAA/T efficacy, and look for theoretical and mechanistic explanations. Currently, unified protocols for EAA/T interventions do not exist. Therefore, it is difficult to compare the results of different studies because the intervention evaluations are specific to each intervention. Furthermore, most studies in the EAA/T fields evaluate therapeutic riding, not EFP. Another problem is small convenience samples in many of these studies that make it impossible to generalize their findings beyond the subjects. In addition, small sample sizes are not appropriate for statistical tests.

Reviewing studies that explore theoretical aspects of EAA/T confirms that the human-horse relationship plays a primary role in EAA/T. However, the role and underpinning of other features of EFP are not yet fully explored. For example, what is the role and impact of the particular setting of the stable in the therapy process? This field therefore lacks a unique theory that accurately represents it.

Current EFP knowledge building struggles with the theoretical underpinnings of this practice and have not resulted in a theory. A unified theory that would capture the unique features of EFP would provide a theoretical basis for both the practice itself and future studies of this growing form of therapy. A multimethod approach could promote this exploration. Inductive, qualitative studies in the tradition of GTM could lead to the formulation of midlevel theories about EFP. Although some prior studies have attempted to do this, their level of conceptualization has been limited. A more rigorous qualitative design may yield further theoretical insights. Alternatively, deductive methods could investigate selected features of EFP, in view of existing theories. For example, it is still unclear whether or not attachment adequately represents the human-horse relationship in a therapeutic context.

Qualitative methods encourage participants to introduce factors they perceive to be important and relevant, allowing new constructs to emerge that are not constrained by the researcher. Quantitative methodology examines only constructs generated by the researcher (Knight, Nunkoosing, Vrij, & Cherryman, 2003). Various research methods, when combined, can complement one another, resulting in a unique theory that encompasses the various components of EFP.

GTM, an approach of naturalistic inquiry, aims to develop theories that are grounded in data systematically gathered and analyzed. GTM is an inductive, theory-discovery methodology that allows developing a theoretical account of the general features of a topic while simultaneously grounding the account in empirical observations or data (Martin & Turner, 1986). GTM aims to develop conceptual categories; thus data collection is directed toward illuminating properties of a category and relations between categories (Charmaz, 2006).
The major difference between grounded theory and other methods is its specific approach to theory development. Grounded theory suggests that there should be a continuous interplay between data collection and analysis, which occur in tandem through “comparative analysis” (Roberts, 2008). At first, interview data or another form of data are compared to other data, derived perhaps from interviews or via other methods. Second, categories and properties are identified, and theory begins to emerge. When it has begun to emerge, data are compared to theory. The results of this comparison are written in the margin of the note-taking as coding. The researcher’s task is to identify categories, roughly equivalent to themes or variables, and their subcategories. This coding yields certain theoretical propositions about links between categories, or about a core category (i.e., a category that appears central to the study). As the categories and subcategories emerge, they and their links to the core category provide the theory.

GTM is extremely useful in developing context-based, process-oriented descriptions and explanations of the phenomenon. This methodology can provide a framework to produce interesting and innovative research (Roberts, 2008) and can enable the creation or development of new theories in areas of research where there is little existing knowledge (Rennie, Phillips, & Quar-taro, 1988). Furthermore, qualitative methodology can shed light on the psychology behind the complexities of human-animal relationships (Herzog, 1993). Therefore, GTM could develop a unique midlevel theory for EFP and promote a conceptual and theoretical understanding of its components and their interrelationships.

Conclusions

EAA/T interventions are widely used and anecdotal reports suggest that they are useful with populations that have a wide range of symptoms. However, research in these fields appears to be in a relatively early stage of development. Further research and theory development would create a solid foundation for these fields.

Research indicates that GTM can be valuable when exploring fields with limited knowledge. In addition, attachment theory may offer insights into the understanding of the human-animal bond. It may yield information related to the psychological changes people undergo when they bond with animals. Horses are rarely subjects in current studies of AAT or the human-animal bond. This creates a situation in which research into therapy that involves horses relates to the fields of EAA/T solely, rather than AAT.
A thorough review of existing knowledge revealed numerous EAA/T studies of such poor quality that population-level inferences are impossible. Furthermore, to the best of our knowledge, EAA/T studies have not included studies of attachment to horses.

Developing a solid foundation of research for EFP requires improving methodological issues in evaluation studies. In addition, possibly through GTM, a midlevel theory could be developed that will guide EFP intervention. This could also be joined with an exploration of the human-horse bond and attachment to horses. Combining these research methods may offer insights into some of the underlying processes for change that may occur through EFP, thus providing a unique and inclusive theory for EFP.

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Note

1. From here on, referred to as “animals.”

References


