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Heroes and Horses: Veteran and Equine Experiences with Equine Facilitated Learning and Therapy

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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

HEROES AND HORSES: VETERAN AND EQUINE EXPERIENCES
WITH EQUINE FACILITATED LEARNING AND THERAPY

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy

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College of Education and Behavioral Sciences
School of Psychological Sciences
Educational Psychology

August 2015

This Dissertation by: Karen Elizabeth Krob

Entitled: *Heroes and Horses: Veteran and Equine Experiences with Equine Facilitated Learning and Therapy*

has been approved as meeting the requirement for the Degree of Doctor of Philosophy in College of Education and Behavioral Sciences in School of Psychological Sciences, Program of Educational Psychology

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ABSTRACT

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Equine-based programs with goals of helping Veterans and those involved in Veterans' lives are quickly gaining in number and popularity. A number of hypotheses exist as to why such programs might be effective, but what is the experience of those participating in such programs? Further, it is important to recognize not only the experiences of the human participants, but the experiences of the non-human animal counterparts, in this case the equines. The purpose of this project, therefore, was to explore the experiences of individuals involved in an equine-facilitated learning (EFL) and psychotherapy (EFP) program for veterans at a therapeutic riding center. Through heuristic research methodology, I focus specifically on the individual and shared experiences of 12 Veterans and 21 equines. Primary sources of data included observations and field notes of weekly classes over a period of seven months, photographs of classes, conversational interviews with Veterans, and reflections on my own experiences. These were supplemented with Veteran self-report intake and exit survey responses, discussions with the riding instructor and counselor, and volunteer observations.

Veterans indicated that the horses, the shift away from traditional talk-therapy, and the opportunity to connect with other Veterans were the greatest draws of the program. They also felt participation in the program helped them become more mindful

and improved their capacity for compassion toward themselves and others, their relationships, and their mood while on-site and off-site. All Veterans were mindful of their relationship with their equine partners and enjoyed finding connectedness, though the relationship seemed more central for some Veterans than for others. Equines tended to exhibit relaxed and engaged behaviors, with instances of apparent displeasure and discomfort typically associated with specific activities or passing moments, such as adjusting to an unfamiliar Veteran. One equine did not continue with the riding center, and two Veterans explicitly expressed concern regarding equine burnout.

Outcomes support that equine-based models for Veterans have powerful transformative possibilities for all involved human participants – and potentially some equine participants. However, this experience also touches on a number of issues warranting further consideration, including the selection and maintenance of equines involved in such programs, and the centrality of the equines and human-equine bond.

Keywords: equine facilitated learning, equine facilitated psychotherapy, heuristic methodology, Veterans

DEDICATION

I dedicate this work to Captain Ted (Calvin Theodore) Gagnon of the United States Air Force, also known as Grandpa, and to the other service men, women, and non-human animals who have served our country. I also dedicate this to Matt. Thank you for laughing at the idea of being "too old."

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Thank you to my many friends from my many walks of life – for being there, for understanding when I was not there, for all the support and inspiration you have provided. Krista and the McNair Scholars, I would not have survived without your encouragement and understanding. Rachel, my dissertation maid-of-honor, you have my undying gratitude. Julie, thank you for introducing me to dancing. Rosann – again, my heart swells with more gratitude for which there are no words. I see this as a triumph for both of us. And of course thank you to family – to my aunts and uncles and cousins and grandparents – everyone who has helped support and shape me. Most of all, thank you to my parents for their love and encouragement, for passing on to your children a value of education and love of horses, and for tolerating my hands-on-the-hips, "those-aren't the choices" attitude; to Scott, thanks for being the dragon to my phoenix, my own personal tech support, and someone who can finish my sentences and provide laughs when they are most needed; to Greg, thanks for understanding and reassuring me through the whole experience – you are an invaluable role model, and I really appreciate your perspective and encouragement. To Greg, Heidi, James, and Evan – thanks for the chocolate and coffee! John (and Lynn and Grandpa), I know you have been present through all of this – thanks for watching out for me, and reminding me to play.

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CHAPTER I

INTRODUCTION

We move from part to whole and back again, and in that dance of comprehension, in that amazing circle of understanding, we come alive to meaning, to value, and to wisdom: the very circle of understanding guides our way, weaving together the pieces, healing the fractures, mending the torn and tortured fragments, lighting the way ahead—this extraordinary movement from part to whole and back again, with healing the hallmark of each and every step, and grace the tender reward. (Wilber, 2001, p. 1)

Why We Dance

Letter from a Veteran:

I have found myself closing down more with each passing year. Although there have been emotions, I can't say they were the emotions that you would like to always have. The first day I sat on top of [Harley] I will admit there was a large fear factor.

In about 5 minutes that fear was gone. [Harley] helped me find my seat...and it seemed that every time I started having more anxiety, I could feel [the horse] fill up those big lungs and just release a big ol' puff of air. Suddenly I would find myself remembering to breathe. ... [Harley] has allowed me to focus on relaxing, breathing and working with him which happens so many times with Veterans. We often find ourselves in that 'it's going to be our way' mind set. [Harley] has...allowed me to learn that I have to work together in order to get things done. ... To have [him] accept me for who I am: that is unexpected. You don't remember, or know if you have ever had that acceptance. But he does it. And yet, he will snap you back into reality if you begin to think you are the boss without involving him in the decision first. But he still respects me, faults and all.

Most importantly, I now smile. I laugh, and I smile some more...I am starting to even carry that feeling home with me. So to the owners of [Harley], thank you so much for allowing me the opportunity to ride him, befriend him and learn to LIVE my life over with him. To the staff at [the Therapeutic Riding Center]: no words will ever be able to express the thanks for what you have started to help me regain in my life. I only wish there was a way everyone could experience this." [Russ, Figure 1]



Figure 1. Russ and Harley.

The air is a frosty 10 degrees Fahrenheit. Fine, powdery snowflakes twirl and float on their descent from the slate-gray skies, coming to settle on brown and black fuzzy winter coats. My toes and fingers are numb; even my boogers are stiff from the cold. Droplets of condensation freeze on Thomas's whiskers. He is feeling frisky and wants to play, prancing and flagging his tail the best a Thoroughbred can. And so we play, running and stopping and changing direction (Figure 2). My husband and Ace (another Thoroughbred gelding) stand back to watch, my husband snapping pictures to capture what he calls a dance.

Thomas and I, we dance in the snow. Partners attuned to the others' posture and movements. He squeals and I laugh, but there is no need for words. The rest of the world fades into background, including stress from the week, the semester, and the looming future. Even the clicks and beeps of the camera (usually indicating it's time to hide) disappear from my awareness. This moment is about Thomas and me, dancing to the birds, the air moving through naked trees, our own breaths and hoof/foot-falls on the frozen ground.



Figure 2. Dancing with Thomas.

It is a short dance. I don't want him breathing too heavily or getting too sweaty in the cold air, so I bring it to an end. The four of us walk home. I toss the light blue fleece cooler over Thomas to keep off the chill, toweeling his neck dry as my husband begins breaking the frozen manure piles free from the ground and scooping them with heavy thumps into the squeaking black wheelbarrow. I carry with me a feeling of excitement, satisfaction and peace based on this moment of mutual connectedness eight years in the making. This is what motivates me—what drives and shapes my interactions with the world, my learning, my research.

I wonder: do others dance in this way? What is the equine experience? How does it impact other humans and horses? How does the context of the interactions shape the experience? It is experiences and questions such as these that led me to the current study, exploring the experiences of Veterans and equines involved in an equine-facilitated program, learning this dance, and the Veterans' meaning-making of such experiences. And so I write to (re)present the experiences of the participants and share their stories, but this narrative is just as much a result of my own equine experiences and the horses who have taught me to listen and to dance.

Background and Statement of the Problem

Biophilia: love of life or living systems. Fromm (1973) introduced the term to describe a biologically-based "passionate love of life and of all that is alive" (p. 365). Wilson (1984) subsequently presented the biophilia hypothesis, which asserts an "innate tendency to focus on life and lifelike processes" (p. 1), or the idea that humans have a genetically-based need to connect with the natural world. Biologically prepared learning may promote adaptive responses to the natural world, including approach behaviors, restoration or stress recovery, and enhanced high order cognitive functioning in the case of non-threatening landscapes (Ulrich, 1993). Research has supported that exposure to nature may contribute to cognitive, psychological and physical well-being (Gullone, 2000; Kahn, 1997; Kellert, 1993; Ulrich, 1993; Wilson, 1993). Further, lack of interactions with nature may, in fact, yield negative consequences, as suggested by Gullone (2000), Louv (2005), and others.

This "urge to affiliate with other forms of life" (Wilson, 1984, p. 85) need not be restricted to considerations of the physical landscape: it may also be fulfilled through interactions with other living beings. Wilson himself was inspired by observations of leafcutter ants (1984) and noted that more children and adults in North America visit zoos than attend major professional sporting events (1993). This continues to hold true in the US, with over 175 million annual visitors to zoos and aquariums (Association of Zoos and Aquariums, n.d.) compared to approximately 140.8 million individuals attending professional football, basketball, hockey, baseball, and soccer games (Gaines, 2012). Indeed, human and non-human animals have shared longstanding and varied relationships across cultures and through time, with humans turning to non-human

animals as sources of food, materials, transportation, and labor, recognizing them as spiritual beings and symbols, looking to them for companionship and social support, and depicting such relationships through literature, oral tradition, and the arts (see Braje, 2011; Lawrence, 1993; Robinson, 1995; Serpell, 2010; Shepard, 1993; Shipman, 2010; Urton, 1985). This affiliation is reflected in the popularity of pets and companion animals. In the US alone, 65% of households reported having at least one pet and spending more than \$58 billion on pets and companion animals (American Pet Products Association [APPA], 2015). Though not without challenges and limitations, owning/caring for animals has been associated with an array of positive physical and mental health outcomes (see Barker & Wolen, 2008; Beck & Meyers, 1996; Endenburg & Baarda, 1995; Friedmann, 1995; Hart, 1995; Siegel, 2011; Smith, 2012).

Based on perceived benefits of pets and companion animals for owners/caretakers, animals have been increasingly purposefully incorporated into a variety of environments in order to achieve physiological, psychological, and social outcomes over the past decades. Such practices have come to be referred to as pet-therapy, animal-assisted therapy, animal-assisted activities, and a number of other terms that, for the purposes of this paper, will be generally referred to as animal assisted interventions (AAIs; Fine, 2006). Research on AAIs has surfaced in disciplines including, but not limited to, education (e.g., Chandler, 2001; Jalongo, Astorino, & Bomboy, 2004; Kaymen, 2005), counseling psychology (e.g., Chandler, 2001, 2012) and psychiatry (e.g., Barker & Dawson, 1998), human development and developmental disorders (e.g., Endenburg & van Lith, 1997; Martin & Farnum, 2002), social work (e.g., Tedeschi, Fitchett, & Molidor, 2005), gerontology (e.g., Banks & Banks, 2002), physical and

occupational therapy (e.g., Velde, Cipriani, & Fisher, 2005), health and medicine (e.g., Johnson, Meadows, Haubner, & Sevedge, 2008; Morrison, 2007), and veterinary medicine (e.g., Kaiser, Heleski, Siegford, & Smith, 2006). Authors of research and reviews have cited numerous benefits of AAIs, including: physiological benefits such as decreased autonomic response (e.g., heart rate) in anxiety-provoking situations and increased motor functions (see Nimer & Lundahl, 2007); psychological and behavioral benefits such as decreased depression and anxiety (Souter & Miller, 2007), improved anger management and emotional control (Hanselman, 2001; Parish-Plass, 2008), and improved attention (Bass, Duchowny, & Llabre, 2009; Macauley & Gutierrez, 2004); and socioemotional benefits such as improvement in verbal and nonverbal communication skills (Kovács, Bulucz, Kis, & Simon, 2006; Macauley & Gutierrez, 2004), increased motivation to interact with others (Bass et al., 2009), and an increase in both quantity and quality of social interactions (Bass et al., 2009). Researchers have further found AAIs to be effective with a variety of populations, from children with learning disabilities to college students suffering performance anxiety to elderly patients with dementia (see Nimer & Lundahl, 2007; Rossetti & King, 2010).

More recently gaining in number and popularity are companion animal programs and AAIs for Veterans with physical and mental health concerns. According to the United States Department of Veterans Affairs (VA), there were approximately 21.3 million Veterans in the United States and Puerto Rico in 2012 (VA, 2014b). The overall number of Veterans has steadily declined since 1985. However, there has been a 68% increase in Veterans with a service-connected disability since 1986, 69% since 1990 (VA, 2014c). Approximately 45% of U.S. military personnel returning from deployment in

Afghanistan and Iraq seek compensation and services for physical and/or mental health challenges on their return (VA, 2011). Increasingly, psychological injuries eclipse incidences of physical injury (Sammons & Batten, 2008). From 2000 to 2009, there was an 85% increase in unique Veteran healthcare contacts in the mental disorders category among Gulf War Veterans (VA, 2011), while the rate of general medical disorders was stable (Kang and Hyams, 2005). Researchers' estimates of the prevalence of mental health disorders and diagnoses among active duty soldiers and Veterans returning from the Iraq and Afghanistan wars range from 18.5% to 42.7% (Miliken, Auchterlonie, & Hoge, 2007; Seal, Bertenthal, Miner, Sen, & Marmar, 2007; Tanielian & Jaycox, 2008). For some Veterans, these challenges interfere with their ability to participate in productive and meaningful daily activities (Sayer et al., 2010), negatively impact their general health (Cohen et al., 2010; Frayne et al., 2011) and social functioning (Sayer et al., 2010), and may also impact family members and loved ones (Carlson & Ruzek, 2014; Galovski & Lyons, 2004), and society at-large (Erickson, Rosenheck, Trestman, Ford, & Desai, 2008; Metraux, Clegg, Daigh, Culhane, & Kane, 2013; Rosenheck, Banks, Pandiani, & Hoff, 2000). Of particular concern are rising suicide rates among Veterans, especially among males under 30 years of age and females (Kemp, 2014; Sher, Braquehais, & Casas, 2012).

Despite the increase in claims of physical and mental health challenges, few Veterans are seeking treatment or assistance with these issues. Hoge et al. (2004) reported that among Veterans whose responses met criteria for a mental disorder, a high percentage (78-86%) acknowledged a problem; however, only 38-45% of these respondents indicated an interest in receiving help, and even fewer (23-40%) reported

having received professional help in the past year. Similarly, though approximately 19% of Iraq and Afghanistan Veterans experience symptoms of PTSD, only half have sought evaluation and treatment (Tanielian & Jaycox, 2008). In response, the VA has concentrated efforts on developing effective, innovative services for Veterans. Sixteen major initiatives, guided by the three principles of being people-centric, research-driven, and forward-looking, serve as the platform for these changes and include specific initiatives to improve Veterans' mental health and perform research and development to enhance the long-term health and well-being of Veterans. These measures may be making a positive impact, as Elbogen et al. (2013) reported greater rates of post-9/11 Veterans accessing mental health services. However, a discrepancy remains between the proportions of Veterans who qualify for and those who receive assistance. It seems there is still need for addressing barriers to care and barriers to engaging in care, including normalizing such experiences and reducing perceived stigma, and offering alternative or complementary programs that appeal to Veterans.

AAIs provide one such option for alternative programs that seem to appeal to a growing number of Veterans. Through media such as televised newscasts, magazine articles, newspapers, websites, and blogs, Veterans share how animals have: assisted with physical, psychological, and medical needs (e.g., Patriot PAWS, 2014; Thompson, 2010); aided with sleep and physical functioning (e.g., Fagen, 2014; Patriot PAWS, 2014); calmed anxiety and provided comfort (e.g., Fagen, 2014; Leigh, 2014); bolstered confidence and trust (e.g., Patriot PAWS, 2014; e.g., Starling, 2014); encouraged emotional awareness and control (e.g., Roeder, 2014); offered nonjudgmental acceptance (e.g., Walker, 2014) and unconditional love (e.g., Fagen, 2014); facilitated social

interactions (e.g., Leigh, 2014; Patriot PAWS, 2014; Thompson, 2010); contributed to regaining of a sense of independence and self (e.g., Patriot PAWS, 2014); and provided a sense of responsibility and purpose in life (e.g., Starling, 2014; Walker, 2014). In short, these encounters and experiences, both formal and informal, offer opportunities for Veterans to heal, learn, and grow.

Many companion animal experiences and AAI programs involve canines, though equine-based programs are quickly increasing in number and size, with goals of helping Veterans and those involved in Veterans' lives (i.e., spouses, family members, friends, caregivers) improve mental, physical, social, and spiritual well-being. For example, the Lexington VA Medical Center partnered with Central Kentucky Riding for Hope (CKRH) therapeutic riding center to develop the Horses for Heroes program, offering therapeutic riding and horsemanship, equine facilitated education, and psychotherapy for military Veterans and families. Similarly, VA Montana has partnered with an equine specialist and licensed clinical social worker to offer an Equine Assisted Psychotherapy (EAP) program for Veterans, and the Washington DC VA Medical Center (DCVAMC) offers therapeutic horseback riding as one of the options for Recreation Services through the Ft. Myer Caisson Platoon Therapeutic Riding Program.

As interest in companion animal programs and AAIs for Veterans increases, scholarly research remains sparse in comparison to the number of anecdotal accounts and reports via local media. Consequently, a number of hypotheses exist as to why equine-facilitated learning and psychotherapy (EFL/P) programs may be effective for Veterans, such as encouraging self-awareness and providing social support, but such conjectures warrant purposeful exploration. What is the experience of those participating in such

programs? This question introduces another consideration. In referencing participants AAI programs, it is important to recognize not only the experiences of the human participants, but the experiences of the non-human animal counterparts. A growing body of literature examining the impact of humans on animals supports that, as animals can have physiological, psychological and social impacts on humans, so humans can have similar impacts on animals. For example, in observing 14 horses participating in a therapeutic riding program, Kaiser et al. (2006) noted a significantly greater number of stress-related behaviors (e.g., pinning ears, tossing head) in horses ridden by youths identified as “at-risk” compared to youths with physical, psychological, or cognitive impairments. As Bekoff (2007) urged,

we must do better for all animals and we can do so by taking into account the perspective of the each and every individual who we use for research, education, amusement, and for food and clothing. (T1)

Purpose

The data presented here were collected in the context of a larger project. The immediate purpose of the larger project was twofold: (a) to explore and illuminate the experiences and meaning-making of those individuals involved in an EFL/P program for Veterans through heuristic research methodology (Moustakas, 1990), including the program staff, volunteers, and equine partners; and (b) to use this process to aid in continued development of the program, which, at the time of the research, was the newest of several programs offered at an established therapeutic riding center. For the purposes of the current inquiry, I focus specifically on the Veterans, equines, and their relationships in pursuit of understanding the human-equine bond within the context of this setting and the potential efficacy of equine activities specifically for Veterans.

Significance

This research makes significant contributions in representing particular experiences, informing development of this and similar programs, and contributing to continued discussions in related domains. First, I believe it is important to (re)present the unique and shared experiences of those involved in this program—in this case the Veterans and equines—because these experiences are important to witness by their own right, and because, through this, we approach understanding others' experiences. Second, the in-depth exploration of an EFL/P program from the perspective of those involved has the potential to inform further development and delivery of this particular program and similar programs. Third, this research contributes to the limited body of scholarly and encourages further discussion related to human-animal interactions, specifically in the context of equine assisted activities and therapies (EAAT) and Veteran populations. Inadvertently, this research also addresses two of the VA's 16 initiatives noted above: improving Veterans' mental health and performing research and development to enhance the long-term health and well-being of Veterans.

Research Questions

Broadly, my driving interest is to understand others' experiences with human-equine interactions. In regard to my exploration of participants' experiences with this particular EFL/P program, the primary guiding research question is:

What is the experience of an EFL/P program for Veterans?

Secondary research questions include:

- a. What are the unique experiences of Veteran participants with the program, in general, and with their equine partners, specifically?
- b. What (if any) are the shared experiences of and meanings made by participating Veterans?

- c. How do the equines interact with the Veterans and what is the meaning of the equines' non-verbal communication?

Research Paradigm

In the context of research, a paradigm is a basic set of beliefs that guides our actions. Several paradigms are acknowledged, and "each of these perspectives adopts its own criteria, assumptions and methodological practices that are applied to disciplined inquiry within that framework" (Denzin & Lincoln, 1994, p. 99). In other words, researchers' paradigms ultimately impact every element of research, from the way in which the research question is framed to the methods of data collection and analysis and interpretation of the outcomes. Therefore, consideration of one's paradigm is imperative. As an inquirer guided by Moustakas's (1990) heuristic methodology in seeking *Verstehen*, or understanding, of self and others, my paradigm is rooted in phenomenology and interpretivism. I have also been influenced by Wilber's (1995/2001) four-quadrant model of human experience, in which Wilber illustrates the intersection of individual/collective and interior/exterior realms, resulting in the interior-individual (I), the interior-collective (we), the exterior-individual (it/you/he/she) and the exterior-collective (its/you all/they). Wilber proposed that each quadrant by itself represents only a partial view of reality and called for an integral "all-level, all quadrant" approach (2001, p. 9), through which all quadrants work together to offer complimentary, rather than contradictory, perspectives in pursuit of this holistic understanding of human experience.

I am approaching this research from phenomenological and interpretivist paradigms in that I view humans as autonomous, intentional beings who engage in meaningful actions, and make meaning based on interpretations of any number of stimuli. These meanings and understandings are constantly developed and modified through

continued interactions and interpretations, are contextual, and are influenced by culture, history, and prior experience. Understanding, then, is itself the result of interpretation and is dynamic in nature. In order to understand intersubjective meanings, the inquirer may need to participate in the life world they seek to understand; as I assume the role of inquirer/participant, I do not believe it possible to simply set aside my experiences and history to assume the role of objective, removed researcher. I am an active participant in this research, and I seek understanding, which, "where it is successful...means a growth in inner awareness, which as a new experience enters into the texture of our own mental experience" (Gadamer, 1981, p. 109).

Phenomenology

Phenomenology describes both a philosophical movement and specific research methods (Eatough & Smith, 2008). The development of phenomenology-as-philosophy is largely attributed to German philosopher Edmund Husserl, described as the "fountainhead of phenomenology in the twentieth century" (Vandenberg, 1997, p. 1). Husserl called for a return "*zu den Sachen selbst*" or "to things themselves" (Crotty, 1998/2003; Eatough & Smith, 2008; Patton, 2002), in which the "things," are the objects or "pure phenomena" present to our consciousness, free from assumptions and preconceptions (Husserl, 1913/1982). Though phenomenology as a philosophical movement is marked by variation in forms, ideas, themes, issues, and development (see Giorgi & Giorgi, 2008; Küpers, 2009), at the root is the idea that we can only know that which we experience, or those objects present to our consciousness. Phenomenology is a science of consciousness (Husserl, 1913/1982). In this way, perception serves as the primary source of knowledge (Moustakas, 1994), but perception is subject to our

interpretations and meaning-making (Merriam, 2009; Patton, 2002). The general goal of phenomenology, as stemming from these origins, is to seek understanding of perceptions of conscious experience (Küpers, 2009) and to clarify the essence of such experiences.

Addressing implications for researchers, Crotty (1998/2003) explains that phenomenology invites, even requires, us to consciously engage with phenomena in our world and make sense of them. After all, as beings in and of this world, we cannot be examined as separate from it. If we engage in this way, setting aside preexisting notions to the best of our abilities and revisiting our immediate experiences, it is then possible to enhance former understanding or create new meanings. There is less concern with whether accounts are "factually accurate" (Harper, 2012, p. 90). Instead, the focus is on understanding participants' perspectives, and "it is assumed there is some correspondence between what a person says and their subjective experience" (Harper, 2012, p. 90).

It is important to note that, though phenomenology is often presented as opposing positivism and postpositivism (e.g., Racher & Robinson, 2002), and the phenomenological worldview developed in reaction to and to be distinguished from positivism (Husserl, 1913/1982), elements of phenomenology actually remain consistent with post-positivism. Indeed, Harper (2012) identifies phenomenology as belonging neither with direct realist (positivist) nor relativist (constructivist/interpretivist) approaches. First, positivism and descriptive phenomenology both assume an objective truth exists and that knowledge is founded on the senses (Husserl, 1913/1982; Sinha, 1963). With this, where Husserl allows room for subjective individual interpretation and meaning-making, he also compares the resulting pure essence to a single representative

species of a larger shared genus, implying generalizability of concepts and experience (Giorgi, 2008; Husserl, 1913/1982, p. 26-27).

There is also the phenomenological practice of bracketing, or *ἐποχή* [epoché], a "refraining from judgment" (Husserl, 1913/1982, p. 59). Identifying the pure essence of the phenomena requires the researcher to approach understanding free from biases, assumptions and preconceptions. Husserl again distinguishes the phenomenological epoché from that required by positivism, for it is not done in the interest of achieving objectivity, nor producing universally applicable theory. It is done so that these preconceived ideas of the natural world may be subject to critical examination within our consciousness, leading to the emergence of a clearer conceptualization of the pure phenomena. However, it remains that the phenomenologist identifies one's role as meaning-maker, but does not insert oneself into the phenomenon that is the object of examination (Husserl, 1913/1982, p. 149), similar to the absence of the researcher in positivist and postpositivist approaches.

From Phenomenology to Interpretivism

Heidegger (1927/1996) and Gadamer (1960/2004) reinterpreted Husserl's descriptive phenomenology, emphasizing *Dasein* [being there, or existing] rather than consciousness, and rejecting phenomenological reductionism from the perspective that there is no stance free of external influence, leading to interpretive or hermeneutic phenomenology (see Giorgi & Giorgi, 2008; van Manen, 1990). From this perspective, researchers must use "fore-knowledge" of a phenomenon in order to determine the "proper" perspective with which to approach the phenomenon, and must continually consult text and theory to identify to angle from which to approach analysis, and then,

through a dialectical process, explicate, clarify and interpret emerging meanings (Giorgi & Giorgi, 2008, p. 167-167).

Stemming from this interpretive or hermeneutic phenomenology as well as symbolic interactionism, and also in opposition to positivism, is the interpretivist paradigm (Crotty, 1998/2003; Schwandt, 1994). Interpretivism has been discussed and applied at varying levels, ranging from a blanket paradigm for all qualitative research (e.g., Chen & Hirschheim, 2004; Leitch, Hill, & Harrison, 2009) to one similar to, if not synonymous with, constructivism (e.g., Merriam, 2009; Ponterotto, 2005). Schwandt (1994) explores the interpretivist paradigm as a unique one with the goal of *Verstehen* from the emic point of view, rather than *Erklären*, or explanation, as associated with the natural sciences and positivist/post-positive perspectives. Interpretivist inquirers seek to understand "the complex world of lived experience from the point of view of those who live it" (Schwandt, 1994, p. 118).

Even within the common interpretivist pursuit of achieving *Verstehen*, different interpretations and representations of the interpretive process emerge. Schwandt (2000) highlights four ways of theorizing the process of *Verstehen*: empathetic identification, phenomenological sociology, language analysis, and philosophical hermeneutics. In the first approach – empathetic identification – *Verstehen* develops from an empathetic identification with the person of interest, achieved by "getting inside the head of an actor to understand what he or she is up to in terms of motives, beliefs, desires, thoughts, and so on" (Schwandt, 2000, p. 192). In the second way of understanding the quest for *Verstehen*, aligned with the work of phenomenological sociologists and ethnomethodologists, centers around attempts to explore and understand how we come to

interpret and make meaning of our own and others' actions in the *Lebenswelt* – the life world – through a focus on conversation and social interaction. The third approach to *Verstehen* involves understanding systems of meanings, such as institutional and cultural norms, which originated from the works of those such as Wittgenstein and Winch, who examined language games – the systems by which language becomes meaningful to participants. These first three approaches to *Verstehen* also maintain objectivity, in the sense that the interpreter objectifies that which they are interpreting, and maintains/is able to maintain distance as a "disinterested observer" (Schutz, 1962, in Schwandt, 2000).

Finally, Schwandt (2000) introduces philosophical hermeneutics – a fundamentally different way of understanding interpretivism inspired by the likes of Heidegger, Gadamer, and Taylor. Philosophical hermeneutics opposes objectivism and the ability for inquirers/interpreters to free themselves from tradition, the external, and the past by setting them aside at will. In fact, rather than striving to set aside or manage our personal histories in order to achieve a clear understanding, the interpreter must engage his or her biases. "The point is not to free ourselves of all prejudice, but to examine our historically inherited and unreflectively held prejudices and alter those that disable our efforts to understand others, and ourselves" (Garrison, 1996, p. 434). Another way in which this rejection of objectivity sets philosophical hermeneutics apart from the above-mentioned approaches to interpretivism is that, rather than meaning being approached as an object lying in wait to be discovered, meaning is produced and negotiated *during* the act of discovery and interpretation (Schwandt, 2000). In this way, understanding also becomes more than a methodological process – it becomes a lived experience – "the original characteristic of the being of human life itself" (Gadamer,

1960/2004, p. 250). Moreover, this results in fluidity of meaning, to be not necessarily anchored nor constructed, but negotiated. “What the ‘things themselves’ say will be different in light of our changing horizons and the different questions we learn to ask” (Bernstein, 1983).

From Phenomenology and Interpretivism to Heuristic Methodology

Moustakas's (1990) heuristic methodology developed from phenomenological roots as a means of scientific investigation of human experience with the aim of understanding the essence of a phenomenon achieved through a process of question-and-answer involving self and others (Kleining & Witt, 2001; Moustakas, 1990, 1994). However, as outlined by Douglass and Moustakas (1985), heuristic inquiry differs from phenomenology in a few key ways. First, where descriptive phenomenology promotes a level of detachment between the researcher and the phenomenon being explored, heuristic inquiry requires that the researcher have direct, personal experience with the phenomenon in question, leading to a subjective and intimate relationship between researcher and phenomenon. In this way, the researcher becomes co-participant in exploring the meaning of the phenomenon through reflective learning. Second, the phenomenological researcher may conclude with distilled, somewhat generalizable structures of experiences, but the heuristic researcher seeks to provide multiple layers of representation, including not only these shared essential meanings, but also maintaining participants' unique voices, and developing a creative depiction of the holistic experience, including personal experiences and interpretations. Finally, heuristic methodology derives knowledge not strictly from descriptions of phenomena, but relies on the researcher's incorporation of intuition, tacit understanding, and reflexivity in order to

better understand the experience, others, and self. In this way, it is more similar to interpretivism in that there is room for fluidity of meaning and changing interpretations over time. Further, the experience of the research, itself, should result in a transformative experience.

Given some of these ways in which heuristic methodology strays from phenomenology, as well as my own view of and approaches to engaging with the world, I argue my research is founded in both phenomenology and interpretivism. Because I am choosing to follow Moustakas's (1990) heuristic methodology, much of the language I use will be consistent with this approach, and consequently anchored in phenomenology. However, my quest in this research is to not only identify shared experiences of participants, but to represent their unique experiences and voices, as well as identify my engagement with this research topic and how I have changed as a result of this experience. I want to understand the equine experience, but I approach this not seeking a singular conceptualization, but rather embracing the idea that there are multiple equine experiences, and that meanings might be fluid. How I understand the equine experience now is already different than how I understood it prior to engaging in this research.

Overview of Methodology

The purpose of this study was to explore and understand the experiences and meaning-making of participants in a particular context and required integration of empirical research and evidence-based practice with my personal beliefs, assumptions, and experiences as researcher, volunteer, and horsewoman. Therefore, I felt a qualitative methodology was most appropriate. Specifically, I chose to follow Moustakas's (1990) heuristic methodology.

Moustakas (1990), acknowledging the phenomenological underpinnings of heuristic methodology, describes it as inquiry into the nature and meaning of human experience with which one is personally involved through a process of internal search and relation to others who have experienced a certain phenomenon, continuously comparing personal knowledge and experiences to the external world in order to develop new wholes (Sela-Smith, 2002). In this, the researcher-participant not only illuminates new potentials for understanding and meaning-making, but also reveals his or her own tacit understanding and ultimately comes to "see and understand in a different way" (p. 11). Moustakas draws from concepts such as self-actualization, self-disclosure, self-dialogue, personal and tacit knowledge, subjective-objective truth, and analysis of meaning of experiences, citing the works of Maslow (1956, 1966, 1971), Jourard (1968, 1971), Polanyi (1964, 1966, 1969), Buber (1923/1958, 1947/1991, 1965), Bridgman (1950), Gendlin (1962/1997), and Rogers (1951) as influential in the development of heuristic methodology. The basic process of heuristic research includes six phases: initial engagement, immersion, incubation, illumination, explication, and creative synthesis.

The experiences (re)presented here draw on my experiences and those of participating Veterans and their equine partners. I participated in three 8-week sessions with the Veterans, observing and assisting during classes, and interviewing each human participant following the end of each session as able. Initially I intended to interview each participant just once, but most Veterans chose to participate in more than one session, and agreed to do more than one interview. In addition to observations and interviews, I maintained a research journal in which I recorded observations, notes from interviews and program-related meetings, and quite literally bracketed my reflections and

interpretations. Additionally, with the permission of the participants, I took photographs during some classes, which were included in the interpretive process. Here I (re)present the unique and collective experiences of myself, as co-participant, eleven Veterans (6 male, 5 female), and 21 equines. Six volunteers, the riding instructor, and the licensed counselor also agreed to participate, though their experiences are not emphasized in this representation. Similarly, for the purposes of program development, additional data were collected in the form of paper intake and exit surveys, to which I had access. Response patterns and comments on open-ended items influenced my perspective and were included in data analysis, but are not a central focus of this inquiry.

Definitions of Terms

Animal Assisted Intervention (AAI): A term introduced by Fine (2006) to include *animal assisted activities*, *animal assisted therapy*, and other terms denoting activities of a therapeutic and educational nature in which animals are incorporated (e.g., pet therapy, pet-facilitated therapy, animal-facilitated counseling, companion-animal therapy, and those specific to certain species of animal, such as canine assisted therapy, dolphin-assisted therapy, and equine-facilitated learning

Animal Assisted Activities (AAA):

AAA provides opportunities for motivational, educational, recreational, and/or therapeutic benefits to enhance quality of life. AAA are delivered in a variety of environments by specially trained professionals, paraprofessionals, and/or volunteers, in association with animals that meet specific criteria. (Pet Partners, 2012a)

Other features of AAA include: the same activity can be repeated with many people, unlike therapy programs, which are tailored to particular individuals or medical needs; specific treatment goals are not planned for each visit; volunteers and treatment

providers are not required to take detailed notes; visit content is spontaneous and visits last as long or short as needed (Pet Partners, 2012a).

Animal Assisted Therapy (AAT):

AAT is a goal-directed intervention in which an animal that meets specific criteria is an integral part of the treatment process. AAT is directed and/or delivered by a health/human service professional with specialized expertise, and within the scope of practice of his/her profession. AAT is designed to promote improvement in human physical, social, emotional, and/or cognitive functioning [...thinking and intellectual skills]. AAT is provided in a variety of settings and may be group or individual in nature. This process is documented and evaluated. (Pet Partners, 2012b)

Other key features: specified goals and objectives for each individual; progress is measured. Goals may relate to physical, educational, social, motivational, and/or mental-health outcomes, and may include (but are not limited to): improve fine motor skills; improve standing balance; increase verbal interactions between group members; increase attention skills; increase self-esteem; reduce anxiety; reduce loneliness; aid in long- or short-term memory; improve knowledge of concepts such as size, color, etc.; improve willingness to be involved in group activity; improve interactions with others; increase exercise (Pet Partners, 2012b).

Equine Assisted Activities and Therapies (EAAT). Blanket term including activities and specific treatments that incorporate equines. *Equine assisted activities* (EAA) include activities incorporating equine partners without specific rehabilitative or treatment goals. *Equine assisted therapy* (EAT) incorporates equine activities and/or the equine environment with specific rehabilitative goals related to the patient's needs and the medical professional's standards of practice, though not necessarily based on a particular treatment model, and a licensed medical professional is not involved in the actual on-site activity. Some of these activities may include equine facilitated

psychotherapy (EFP), equine assisted learning (EAL), therapeutic horsemanship, therapeutic riding, therapeutic driving, and interactive vaulting.

Equine Facilitated Mental Health (EFMH). Inclusive of equine assisted activities and therapies with a focus on mental health issues.

Equine Facilitated Psychotherapy (EFP). Experiential psychotherapy that includes equine(s). It may include, but is not limited to, a number of mutually respectful equine activities such as handling, grooming, lunging, riding, driving, and vaulting. EFP is facilitated by a licensed/credentialed mental health professional working on-site with an appropriately credentialed equine professional.

Equine Facilitated Learning (EFL). Includes equine activities incorporating the experience of equine/human interaction in an environment of learning or self-discovery. EFL promotes personal exploration of feelings and behaviors in an educational format. It is conducted by a trained instructor in combination with an educator or a therapist. Goals may be related to self-improvement, social interaction and/or education.

Equine Professional/Equine Specialist: Individual with special training responsible for the well-being of the equine in equine-based activities (e.g., horse handler, horse leader, horse expert).

Ground Activities: activities with an equine that are restricted to un-mounted activities, such as grooming, leading, lunging, and other such activities.

Human-Animal Bond. Defined by the American Veterinary Medical Association's Committee on the Human-Animal Bond as "a mutually beneficial and dynamic relationship between people and other animals that is influenced by behaviors that are essential to the health and well-being of both. This bond includes, but is not limited [to]

emotional, psychological, and physical interaction of people, other animals, and the environment" (American Veterinary Medical Association, 2014).

Mounted Activities: activities that involve being mounted on the equine.

Service-connected disability: a disability that is a result of disease or injury incurred or aggravated during active military service (VA, 2014c).

PATH Intl. Certified Instructor or Certified Instructor. Indicates an individual certified through the Professional Association of Therapeutic Horsemanship International (PATH Intl., formerly the North American Riding for the Handicapped Association, or NARHA) to conduct safe therapeutic horsemanship activities. PATH Intl. offers several types of instructor certifications, including therapeutic riding instructor, equine specialist in mental health and learning, therapeutic driving, and therapeutic vaulting. Further, there are three levels of therapeutic riding instructor certification: Level I (registered level), Level II (advanced), and Level III (master). In order to achieve each level of certification, individuals must complete a multi-step educational and assessment process, including completion of training courses, supervised instruction and mentoring hours, and on-site certification tests with both riding and teaching components (PATH Intl., 2014b).

Therapeutic Horsemanship: activities with equines that promote physical, social, cognitive, behavioral, and educational goals through focus on the interactions with equines and learning horsemanship principles and skills. May include ground-based and/or mounted activities.

Therapeutic Riding: activities with equines that use mounted activities to achieve physical, social, cognitive, behavioral, and educational goals.

Veteran: The U.S. Department of Veterans Affairs defines a Veteran as "a person who served in the active military, naval, or air service, and who was discharged or released therefrom under conditions other than dishonorable" (38 U.S.C. §101(2); 38 C.F.R. §3.1(d), in Moulta-Ali, 2015, 1). This includes full-time service as a member of the Air Force, Army, Coast Guard, Marine Corps, Navy, National Guard, and reserve components. Veteran status does not guarantee certain benefits through the VA: active duty and length of service requirements must be met.

CHAPTER II

MY HORSE STORY

It is useful to point out that, in effect, it is not the researcher who chooses the research question, but the research question that chooses them! Invariably, the research question is deeply personal in origin, and it may come to light as a major preoccupation that has been around for a significantly long time. (Hiles, 2008, p. 391)

I am not a Veteran, so I cannot relate to the Veteran participants of this study in that regard. Similarly, as a member of the *Hominidae* rather than *Equidae* family, my understandings and interpretations of the equine participants will forever be limited. However, I have engaged in my own equine-facilitated learning experiences (Figure 3), both formal and informal, and they have unquestionably shaped my being and my life course (notice the topic of my dissertation).



Figure 3. Karen with horses.

My dad contracted Lyme disease when I was young, at a time when researchers and medical professionals were in the early stages of understanding the disease, diagnosis, and treatment, which led to an array of persistent medical complications. Mom worked full time as an elementary school teacher while caring for her husband and

raising four children. Dad fluctuated between good days and bed-ridden days; gradually, the bed-ridden days increased. There was the night our church pastor came over. There was the period of – months? – when family friends and our grandparents would take turns caring for my brothers and me during the week so Mom could stay with Dad at the hospital in a nearby city. We would pile in the car and go visit on the weekends. A kid at school once asked, "Is your dad dead, yet?" When the school counselor got word and pulled me out of class to talk, I couldn't figure out why she was the one crying.

Circumstances like that can cause stress in the soundest of families. A pool of stress and we were sponges. I tried very hard to be good and make life as easy as possible. To this day, I feel I failed more than I succeeded, and sometimes I tried harder than at other times, but I tried. When I was in the sixth grade, things took a turn for the better. Dad was able to get out of bed and spend more time with us, going to movies, going bowling, getting up at o'dark thirty to get donuts and drive out to the ocean like we used to before he became bed-ridden sick. He started running again, and I started going with him.

Yes, things were looking up, and no, my dad isn't dead yet. He still has good days and bad days, but in general, he and my mom both have more life than the Energizer bunny and more strength than I can fathom. But somewhere along the way, and at the risk of sounding cliché, I lost myself. I suppose other people might use descriptors like shy, quiet, thoughtful, serious, sensitive (definitely sensitive). One of my aunts observed I had become more mature and responsible. I would choose descriptors like standoffish and prone to mood swings. A perfectionist. Inside, I felt confused, afraid, guilty, painfully timid, desperate to just be good and make things better. Abstract concepts I discuss with my counselor to this day, and yet expected of myself as an adolescent. So I tried to be

good, to do the right things, to be helpful and not be in the way or causing trouble, whatever I needed to do to avoid rippling the waters and rocking the boat. But I could not escape the perpetual feeling of failure, all the while wondering what happened to the younger version of my self – the opinionated, stubborn, brave, swinging-on-the-rope-swing-with-one-hand, pink unicorn sweatshirt with red pants self. We all change as we grow and engage with the world around us, but I had become uncomfortable in my own skin, uncomfortable in the presence of others, and experienced mood swings, depression, anxiety, difficulty concentrating and sitting still, and the urge to lash out and break things, which likely related to my compulsive exercising, food restriction, and bingeing and purging. I was not good enough, not worth the air I breathed, and looking to apologize for living.

These tendencies began early, but blossomed in high school and continued to grow through young adulthood. They had a negative impact on my schooling, my general health and wellness, but especially on my relationships. How can one relate with others when they don't feel worth the air they breathe? And how does one explain these feelings to anyone else? I wouldn't have called myself actively suicidal, but I thought quite often about how pleasant it might be to go to sleep and simply not wake up again; fantasized about wading out into the cold, dark ocean at night and letting the brine fill my lungs. Now I lay me down to sleep, I pray the Lord my soul to take. At one point as a sophomore in college, I was ready to drop out of school. I remember being home over a weekend to have a cast removed from my left arm following an arm surgery. When it was time to make the drive back to school, I didn't make it any farther than the Wal-Mart before I was crying too hard to continue driving. I turned around and came home, telling

my parents my arm hurt too much to drive and I would go back in the morning. My mom grew concerned when I went immediately to bed. I don't want to go back, I told them. I am not happy. Mom next grew concerned that I had already quit attending classes and was failing out. No, I assured her, I was still attending classes and turning in assignments and performing decently; it was like high-functioning depression. I tried going to counseling, but wasn't ready to talk at that point. The counselor prescribed Paxil and I moved on without actually addressing the root of anything. That didn't happen until I was back in counseling several years later, as a grad student, and even then it took several more years to whittle away at the layers. I almost feel sorry for my counselor – cruising along, doing good, and then *wham!* Let another piece of the puzzle crash into place. On the up side, I was already in counseling when the oldest of my three brothers died unexpectedly. October 10th, 2010 – 10/10/2010 – an easy date to remember. My relationship with him was complex, and I hadn't actually talked to him for almost a year when he died. I posted on his Facebook for his birthday – still one of my greatest regrets.

What does any of this have to do with horses? While I would not be where I am without counseling, I would also not be here without the indirect and direct influences of horses. They opened the door to understanding myself, allowed me to practice just being, provided means to relate with others, and I credit equine experiences with leading me back to counseling and healing. During my learning and growth, in counseling and in the classroom, my equine experiences provided an anchor, allowing me to draw connections and practice change, to see and understand myself, others, and the world in a meaningful way. My equine experiences have shaped who I have become and how I view and

interact with the world, how I have integrated my past and how I will move forward with my future. Horses have become a part of me.

Many people assume I grew up with horses. Not exactly, though I did get plenty of exposure through my maternal grandparents and aunts. When Grandpa retired from the Air Force, he and Grandma settled in a small community in the Pacific Northwest with my uncle and three aunts – a large brown house surrounded by green lawn and trees with a three-stall barn and pasture in the backyard. Equestrian trails meander through the area, connecting private pastures among similar communities. A much larger system of trails spreads through the nearby state park, leading to (or from) public show grounds. When they moved there it was a rural area. Now, their home and the surrounding horse community seem out of place amidst the concrete bustling city life. In my mind, it is an oasis – acres of trails amidst Western Redcedar, juniper and spruce. I can close my eyes and instantly be transported back to those woods – the trees towering over ferns and nettles and blackberry bushes. A carpet of pine-needles. Jumping over the mud puddles, smelling warm, earthy horse smells and fresh, wet green.

Inhabiting Grandpa and Grandma's pasture were two horses and a pony – Dot, the old gray mare (as I knew her), Sidewinder, the very large Appaloosa gelding, and Snowflake, the Pony of the Americas (Figure 4), with quintessential pony attitude. They got the horses for my aunts, who participated in 4-H. My mom was already grown and out of the house, but helped pick out and train Snowflake and Sidewinder. My brothers and I would spend a week or two at our grandparents' every summer, with occasional visits during the winter holiday. For the first nine years of my life, the horses were there. Dot and I didn't share much time. I was rather young the summer morning she was laying

unmoving in the pasture. A truck came and took her away. A few years later, Sidewinder developed an infection that resulted in my aunt's decision to have him put to sleep.



Figure 4. Karen and Snowflake.

After Sidewinder was gone, Grandpa let another woman keep her horse, Rocky, there so Snowflake had company. In true ornery pony fashion, Snowflake lasted the longest. In fact, looking back at pictures, I am caught off-guard at how old he looked, because that is not the way I remember him: a spry, spunky, young-at-heart pony who bit me in the armpit and off whom I took many a tumble. One evening, my grandparents, brothers, and I were sitting at the kitchen table eating dinner when I saw Snowflake escaping the back yard via the large flagstone stairs that led to the front yard. "Snowflake is going up the stairs!" It took some time for anyone to believe me – Snowflake was quite old at that point, and allowed into the roped-off yard to graze in the evenings. Old as he was, he had enough spunk to go for a romp around the house. We managed to divert him down the back drive, framed by the pasture fence on one side and heavy brush on the other. As we approached the rope intended to keep him contained in the back yard, he tucked his front legs and sprung effortlessly over the rope back into the grazing grounds. From then on, the steps were also blocked off during grazing time, but had he really

wanted out, he would have found a way. When I was nine or so, Snowflake finally left this world for the next, and Rocky's owner found a new place for him to live. I don't think there has been a horse in that pasture since, though in his later years, Grandpa hinted he wouldn't mind having horses in the barn again. He would reminisce about his childhood, including his dog, Onyx, and the horse who helped him and his siblings get to and from school in the woods of northern Wisconsin.

During our visits, my aunts taught us about caring for the horses and let us ride in the pasture or down at the small community arena, climb the mountain of hay, taste the grain and eat the carrots. Even after horses were gone from Grandpa and Grandma's pasture, I would walk and run the local trails, straining for glimpses of horses, hoping that one might wander over to say hello. I plucked grass, dandelions, and blackberries, extending my gifts with my hand flat, just as I'd been taught, loving the feeling of whiskers, velvet lips and warm breath on my palm and hoping the horse would find my offerings satisfactory. On really lucky days, equestrian events would be going on at the show grounds, and I could watch jumping and trail events.

When I was fourteen, a close family friend and her husband, both archeologists, brought me to Salinas, CA, where I helped with office work like scanning photographs related to their work. They studied the Esselen Indian tribe in Carmel Valley (Figure 5), and partnered with the Ventanna Wilderness Ranch, who would lead trail rides out into the local area, including an annual camp-out and ride into Pine Valley. Although I did not participate in the ride into Pine Valley, I stayed at the ranch during this annual event and traded horse time and day trips for work such as helping with trail maintenance, tending to the horses (Figure 6), and re-stocking toilet paper. Banjo – a sorrel mare – was my

favorite horse out there. One of the ranch hands informed me that other people referred to her as "She Devil." I loved her. One day I was going to ride her after finishing chores, but another woman took her on the trails, first. On her return, she told me she was leaving Banjo tied up for me. I finished my chores and found Banjo tied and saddled, but sweaty. It was a hot day, and if she had been taken for a demanding ride on the trails, I didn't want to ask her to keep working. Surely a hose-down with cool water, a drink, and a rest would be appreciated, and so, as much as I loved riding her, I unsaddled her, bathed her, and turned her back into the paddock. Perhaps she actually would have loved another outing, and maybe she hated baths, but I think she appreciated my decisions.



Figure 5. Trailview, Ventana wilderness area.

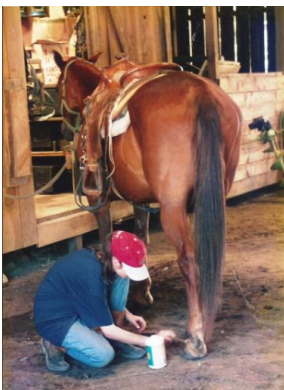


Figure 6. Conditioning hooves.

On the trails, I usually rode Charlie – a stocky draft-horse cross that made me appreciative of being flexible (Figure 7). I learned a lot during that week –horse handling and care, the value of mules in sometimes harsh conditions, improving my familiarity with Western tack, the fact that superglue is a viable treatment for certain injuries, how to recognize poison oak, to clear branches from the trail not only at walking height but also riding height, and to listen to the horses (for example, if they don't want to go down a particular trail, it might be because they are aware of a mountain lion long before we ever notice). And of course I got bounced off Charlie while playing tag on horseback with some of the other young residents at that ranch. I'm very well-practiced coming off horses. Who knew I would revisit these memories from one of my best summers in preparation for my dissertation.



Figure 7. Trail ride with Charlie.

These intermittent summer rendezvous with horses fueled my passion. And then horses found their way into my life more consistently preceding my junior year of college. Mom also loves horses, and was (is) quite the equestrian, herself. In fact, her long-time friend describes her as part horse. She rode neighbors' horses in high school and briefly owned a gelding in college – but horse ownership and college life don't always go well together – so she settled for riding with the college drill team and serving as a teaching assistant in the equestrian classes. She also met my dad in college – they

graduated, he worked at the university, she started raising a family. When Dad contracted Lyme disease – I was about five when he started getting sick – Mom got a teaching job in western Washington and put her horse dreams on hold. Fast forward thirty years. A family friend retired and moved to western Washington. He bought a house with a barn and eight acres not too far from my parents, and then brought horses to fill the barn. Bandit and Truffles came first, then Princess, all three from a rescue organization. When I talked to Mom on the phone, she told me how she and Dad were helping care for the property and the horses, and I joined them when I returned home from college for the summer.

Princess (Figure 8) became one of my first true loves – a spunky three-year-old bay Arab-Morgan mare, not very tall, plenty of sass, bottom of the pecking order with Truffles and Bandit. With Princess, I was introduced to the ideas of natural horsemanship and started practicing the Parelli "Seven Games" (Parelli Natural Horsemanship, 2015). I would groom her and pick her feet; we played in the round pen and took walks on the logging roads. Eventually, with Mom's help, we started saddling and sitting on her. Mom had experience starting horses; I had no idea what I was doing. We'd make games out of it – putting carrot pieces on barrels in the round pen and asking her to walk from barrel to barrel eating the carrots while I sat on her, or just sitting on her while she grazed in the upper pasture. Sometimes Mom would pony her from Truffles. She never bucked or ran off. I played with her almost every afternoon that summer – she even waited at the gate around 3:00. I think part of what worked for us was that I *didn't* know what I was doing, so I wasn't going into our relationship with any expectations, which prevented unreasonable expectations. And because I had dreamt of being able to play with horses, I

just enjoyed being together. She brought me joy, she accepted me the way I was, and as I protected and empowered her, she demonstrated her trust in me, empowering me.



Figure 8. Princess.

Princess also opened a door to a closer relationship with Mom. We never had a bad relationship, but it could be strained, and it wasn't as close as what Dad and I shared because Dad and I had running. Granted, all of my relationships at that point in time were strained due to the fact that I wasn't comfortable with myself, much less anyone else. But Truffles, Bandit, and especially Princess provided a topic of conversation, a shared interest and common goal for Mom and I to start spending time and working together, which has persisted over time.

Mom had offered to buy Princess several times, but the friend wasn't interested in selling her. However, when the fourth horse, Hazelnut, came along, he eventually agreed to let Mom buy her. Hazelnut came with her own challenges – her "blood, sweat, and tears horse" – so Mom moved her out to a local natural horsemanship facility for more consistent help. I continued to join her, and the owner allowed me to play with Moonlight – a sweet, gentle, and insecure large pony. Eventually Mom's one horse became two, when she brought a spunky paint horse, Snickerz, to keep Hazelnut company and help

Mom brush up her riding skills. We took lessons and participated in play days, but would also help with chores on the farm – cleaning and filling water tanks, throwing hay, scooping manure, helping gentle the miniature donkey, Salty. Maybe it was a combination of this joint activity, shared passion, and accompanying shared vulnerability that helped bring Mom and me closer together (Figure 9).



Figure 9. Mom and Karen with Snickerz and Hazelnut.

The final thing – person – sealing my fate that summer was Matt (Figure 10). Matt and I had been school acquaintances since middle school. I don't even remember when or how we first met. We didn't hang out outside of school and participated in different kinds of activities, but we maintained connection through common classes, and we always had horses to talk about. He had a horse of his very own – Twister – I remember talking in science class about what color halter he wanted to get for Twister. Maybe it was because we didn't otherwise share social networks or activities that I felt like I could be myself with him. When I left for college, we didn't keep in touch, so it seemed a chance meeting that summer of 2002 when we saw each other again.



Figure 10. Matt and Karen.

I was at the lake with my boyfriend for the equivalent of a summer block party. He was house-sitting, which came with access to the boat. He drove up to the dock to say "hey," and we ended up out in the boat for a couple hours, talking about nothing and everything as the sun set over the green, tree-covered hills and the water gently slapped the sides of the boat. For the next two weeks, we continued to talk and hang out. Strolling down the aisles of one of the horse barns at the county fair we stopped in to see Twister, and got to talking about horses. Stroking Twister's neck, I reflected on how badly I wanted to be a part of the horse world – to learn to ride and show at events like Matt was doing with Twister; but I was too old for that, now. From the other side of Twister Matt laughed, said I was being ridiculous. It was never too late to start. Then he told me I should stop petting Twister – the fly spray and coat conditioner were making the dirt stick to my hands. Sticky and black. Oh well. Horse dirt is never a problem.

A few days later, Matt went four-wheeling and never came home. The four-wheeler went over an embankment, crushing Matt between it and a tree. He died on scene, and the friend who went with him was air-lifted to a hospital in Seattle. He had asked if I wanted to go, but four-wheelers (and other motorized recreational vehicles) scare me. Maybe if I had gone, my anxiety would have compelled him to keep to safer routes and kept him alive, but I'll never know the answer to that. Fall term of my junior

year at college began about two weeks later. I came home during the first or second weekend of the semester for his memorial service, which his parents held at the fairgrounds, Twister there pacing in a pen. Following the memorial service (Figure 11), I wasted very little time looking for barns near school at which I could start taking lessons, and took a second part-time job with the university dining services to pay for my new habit. I bought a shiny white Troxel helmet, black riding tights, and my first pair of black lace-up Ariat paddock boots. While other students slept in on Saturday mornings, I woke up early to pursue my dream of learning to ride. I practiced falling off almost every weekend, and I distinctly remember the day, riding Dina, that I finally relaxed my hips and rode (rather than bounced) the canter.

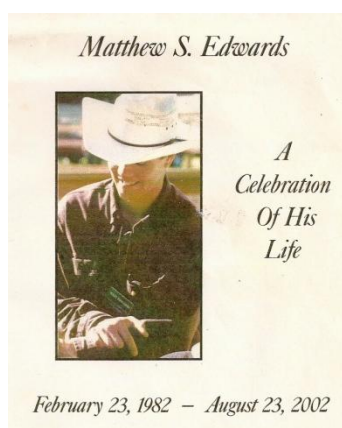


Figure 11. Matt's memorial service.

Horses didn't magically fix everything that one summer, but they served as a catalyst for what turned into a much larger personal journey and have been there for me in different capacities along the way. After completing my bachelor's degree, I moved to Colorado to pursue a master's in music education. I arrived in August to find a place to live, take my placement tests, and prepare for the next step in my academic journey. After a few horse-less weeks, I found a jumping instructor got back to taking lessons. Mom

also noticed on a Parelli listserv a natural horsemanship trainer with an email address suggesting she worked where I was going to school. I introduced myself, got directions to her house, and helped her and her husband – I will call them Jack and Jill – move 500 small bales of hay. So began our friendship, and my headlong dive into horsemanship. Though I did not know it at the time, this became my point of no return.

Jack and Jill invited me to come out and ride, took me on my first mountain trail ride (Figure 12) aboard Jack's prize mare, and let me audit their clinics in exchange for help with registration, scooping manure, and other such tasks. Concurrently, the jumping trainer with whom I was riding allowed me to gain a lot of experience schooling different horses and joining her at shows. We started to look for a project horse for me – one that I could learn to jump on, and turn around to sell. After looking at several horses, a friend of hers called with a prospect – an off-track Thoroughbred gelding out of Texas. If I had known as much about horses then as I do now, I probably would not have ended up taking Thomas, or "Fuzzy" as he was known then. He had a habit of bucking under pressure, as well as early signs of navicular disease. When we went to go look at him, sported a heavy coat for August, and was very quiet – lethargic, actually, but marketed as "quiet" much the way a tiny house might be marketed as "cozy."



Figure 12. Lory State Park.

I borrowed money from one of my aunts to cover his price tag and new-horse expenses like a vet check, farrier, hay, grain, and shavings. We brought him to the jumping trainer's barn and it took us three hours just to get him to back out of the trailer. Finally, sweating and shaking, he practically lowered himself to the floor and inched out. His shoes were too small, so the farrier pulled them to let him go barefoot and see if his feet would spread out a bit. That first night without shoes he spent laying for hours in the shavings. Horses' circulation and digestion requires them being upright and moving – lying down for extended periods of time can be dangerous. I nervously kept checking on him, convinced he might die within less than a week of owning him. I hadn't even settled on a new name. Needless to say, the farrier put shoes back on. He got pasture time and groceries to gain weight, and I practiced some of what I had learned in terms of ground work to bond. He became Thomas (Tommy to me).

Thomas had some tendencies to resist pressure, pulling back, bucking, even rearing up, often for reasons I didn't understand. But for the most part, he was willing and wanted to please; he just didn't always understand what was being asked of him or how to execute it. He didn't have much of a right-lead canter, was resistant to turning right even with the right lead. One day, when I could not get him to turn right during a lesson, the jumping trainer got on to school him. By the end of what seemed an eternity (probably 20 minutes later), he was sweating and broken out in stress hives, with traces of blood mixed with the foaming saliva around his mouth, I was crying, and the trainer was telling me he was dangerous. I called Jill, whose methods aligned with natural horsemanship – she and Jack came with their trailer and took Thomas to their place that night. Shortly after, they asked me to house-sit, which led to me moving in for the next five years to help with

daily chores and clinics and starting horses in the summers. Through this, I came to spend countless hours with dozens of horses, each horse and each situation teaching me something. I even got a hug from Ray Hunt (Figures 13, 14).



Figure 13. Ray Hunt demonstrates directing the horse's body with his body.



Figure 14. Thomas at the Ray Hunt clinic.

The summer of 2006, my parents came to visit and paid for me to ride in the horsemanship portion of a clinic with Ray Hunt in Wyoming. Dad couldn't stay to watch – the Colorado altitude exacerbated his heart problems, so he boarded a plane and headed home early and Jack, Jill, Mom, and I loaded up the horses and headed to Wyoming for the three-day clinic and camping. It was amazing. Many of the riders and auditors tried to catch Ray – Mr. Hunt – for photos and autographs before and after the clinic and during lunch. I did not take a picture with him. But I got a hug. As I reminisced in a blog post (March 18, 2009):

One of the greatest horsemen in history - he was called a "Master of Communication" for a reason - passed away last week. I had the opportunity to ride Tommy in the horsemanship portion of a Ray Hunt clinic in Wyoming in 2006. I have the best parents in the world. In fact, Mom took the photograph[s].

He was amazing to watch - watching him watching the horses and humans. My favorite part, though, was not caught on camera. In fact, Julie's half-brother, Clayton, remains the only eye-witness. See, everyone else took a picture with Mr. Hunt and shook hands with Mr. Hunt. But when I went to thank him and shake his hand....he said, "Come here, Karen" and he gave me a hug.

Maybe it was my very large horse. Or my english attire with western tack. Or my purple hair. I don't know. But I shared a hug with Mr. Ray Hunt. And when he smiled, he had the brightest twinkle in his eye. (Thank you, Mom and Dad!)

And he was wise beyond the horsemanship. Some favorites from quotes from his book, *Cowboy Logic* (Hunt, 2004), illustrate this: "Fix it up and let him find it"; "Adjust to fit the situation"; "Recognize the smallest change, the slightest try"; "It's the little things that make a big difference"; "Believe in your horse so your horse can believe in you"; "Make the best out of a bad situation"; "The slower you go the faster you will learn"; "The horse will teach you if you'll listen"; and, of course, "Whistle, grin and ride!"

While [these quotes]...apply to multiple venues of life. Like teaching. Relationships. Getting through hard times. So very wise.

Rest in peace, Mr. Ray Hunt. I know you were in it for the horse, but you helped the humans, too. Thank you for sharing your wisdom and your self. And thank you to your family for sharing, too! (Schmidt, 2009)

The following summer was also a defining summer, thanks to Thomas's occasional explosions. As mentioned, the jumping trainer had told me she thought he was dangerous, given his seemingly unpredictable powerful outbursts. Not too long ago, another person who met Thomas early in our relationship confessed that she thought we might just have to...and then held her index and middle fingers between her eyes and made the hammer shooting motion with her thumb. I never saw him that way. Troubled, yes. Positively formidable towering up in the air when he reared. But a dangerous, lost cause? Of course not. We just needed time and help. Under the guidance of Mike and Molly, we spent hours in the round pen and arena and out on the trails, working together on the ground and under saddle. During one of those rides, I earned the worst of my horse-related injuries: a lacerated spleen. It had been quite some time since Thomas had

exploded, so one summer evening, we prepared to go out for a ride: Jack, Jill, a friend of theirs, and this friend's niece. Usually I would do a little groundwork prior to riding, but I succumbed to external pressures to hurry up, get on and ride out. As we were out, I didn't address Thomas's early warnings that he about to blow. He told me as we descended the first little hill. Eventually, his hints became a scream and he bucked hard.

I got up, brushing the dirt and grass and twigs from my body. He continued to buck, head down low between his front legs, seemingly unaware of his surroundings. When this episode came to an end, Jack was yelling at me to get back on, and the longer I took, the louder he yelled that I needed to get right back on or I wasn't worth anything (maybe not exactly what he said, but what I heard). My focus was trained on Thomas, who had stopped bucking, and Jill. I held eye contact with her, silently projecting "something is not okay," until the yelling stopped as he grew impatient and rode off on his own. We were at least a mile from home and needed to get back. I bent Thomas's head and climbed back into the saddle. Good Lord, he is tall. Jill suggested I ride double on the mature, "bomb-proof" gelding and let her pony Thomas back. So the gray prince bore me home, where I slid off and went in the house, leaving Jill to tend to Thomas.

When she was through with the horses, she came in the house to find me in fetal position on the teal carpet of the living room floor with an icepack on my front left abdomen and a bag of frozen peas shoved in my pant waist in the back. I don't recall the physical pain as strongly as I recall the clenching knot of failure in my gut. "I have no business with horses. I should just quit and walk away. Jack is right. Clearly I'm a fuck-up and can't do this." Jill drove me into town to the emergency room, where I tried to wait patiently for my turn, frozen peas still stuffed into my pant waist. That is where I

learned how internal injuries can manifest as pain in other areas like your shoulder. That is also where I learned about pain killers, the stuff that leaves a metallic taste in your mouth and makes you feel like you are peeing your pants, and how much Jill cared about me. The diagnosis: a laceration to the inner capsule of my spleen – not serious enough for emergency surgery, but enough to admit me to the hospital and monitor recovery for a couple days. Jill stayed with me that night, and the next day brought me a stuffed cat from the gift shop so realistic the nurse started explaining we positively could not have pets in the hospital. Jack called to apologize for yelling. My mouth told him "it's okay," my brain thought "whatever."

Being yelled at, feeling like a worthless piece of shit who couldn't do anything right – the fetal-position, knot-in-my-stomach feeling – and the resulting downhill slide led me to seek out counseling. School was, of course, challenging – especially making the shift from music education to educational psychology. Living with this married couple was a roller-coaster. They had become family, but a somewhat dysfunctional family. There are plenty of fond memories of laughter and play – especially those times when others were visiting. But between those times, Jill worked long hours and Jack tried to quell some of his discontent with beer. They struggled to communicate with each other – it often turned into shouting matches, and few things incite my anxiety and freeze mechanism so quickly as loud noises, yelling included. Another friend and I later reflected that we felt we spent a significant amount of time and energy figuratively tiptoeing around trying to avoid waking the sleeping beast, and subsequently tiptoeing around Jill trying to help her manage and again avoid irritating her. I began to stay at the library until the doors closed at midnight to avoid contact with either of them, then get up

early the following morning to do chores and, in decent weather, work horses before heading back to school.

Between my naturally tendency to embrace this image of self-as-failure, the stress of graduate school, and what felt like a volatile home environment, I soon found myself revisiting old but familiar territory. Mood swings, visualizing punching glass, compulsive exercise, difficulty concentrating and sitting still in classes, ever-increasing frustration. I briefly revisited laxatives, but instead settled toeing the line of cutting – "toeing the line" because I wouldn't call myself a cutter – more an etcher. I used the tip of a pocket-knife or push-pin to carve short, neat lines into my left inner arm, three at a time. A friend at school noticed them once – I wrote them off as cat scratches, but knew this behavior was problematic, and sought out counseling a second time. And this is why I say my equine experiences led me back to counseling and to change. Thus began the long journey of self-discovery and improvement.

Living and working with Jack and Jill also introduced me to the realm of equine-facilitated learning and psychotherapy. Up to this point, I studied music education, and began the doctoral program interested in music, emotion, and cognition. While I was living with Jack and Jill, they were approached by a counselor who specialized in addictions and wanted to incorporate work with the horses into his counseling practice, so he partnered with the trainers to develop an equine-facilitated therapy approach, which was piloted over two sessions. The first session took place in the summer using the counselor's horses with individuals who had been incarcerated and were transitioning back into daily life. The second took place during that winter with Jack and Jill's horses (and Thomas!) with women recovering from addictions. Both relied on ground-based

activities with the horses, such as grooming and learning the basic groundwork exercises, followed by debriefing sessions in the arena. I assisted with supervising the equine activities, keeping notes of the weekly activities to help develop a curriculum, helping develop a measurement tool, and helping produce other written documents such as brochures advertising the program. As I began to learn more about this emerging field, I also became aware of professional organizations such as Equine Assisted Growth and Learning Association (EAGALA) and PATH Intl. Ultimately, the partnership with the counselor did not last, but the effects on me were permanent.

As I progressed with my counseling and self-growth, I moved away from the married couple and into my own apartment. Then I moved Thomas to a different boarding facility, where I worked feeding and cleaning to cover boarding and lesson expenses. My new veterinarian and farrier worked together to get Thomas sound, and I rode some of the on-site lesson horses in the meantime, which is how I came to meet Ace. Ace was another off-track Thoroughbred horse, coincidentally foaled in Texas the same year as Thomas. Athletic, sensitive, insecure, spooky, a lot of go without much whoa, seeking security and wanting to please. I had ridden Ace in one or two lessons – plenty to fall in love with him with all his quirks and insecurities – before finding out he was for sale. His owner didn't have the time he needed. I didn't have the money, but it was fun to fantasize.

Looking back at pictures, one of my lessons with Ace fell on Saturday, October 9th (Figure 15). Look at that smile. The next day – that fateful 10/10/2010 – I returned from a run to find a concerning voicemail from my next older brother; something happened and I needed to call him as soon as possible. Thinking something happened to

one of my nephews, I dialed, unprepared for "John's dead." It was almost like the movies where it feels like time stops and your senses dull. Again I found myself lying on the floor, sobbing into the phone and this time brown carpet, this time a knot in my stomach realizing I hadn't talked to him for almost a year and never would again.

I stayed enrolled in courses that semester, but it was my job teaching psychology classes and horses that really got me out of bed and out of the apartment. Amidst going home to be with family and for my brother's memorial service, I told Mom about Ace. I really expected her to talk me out of it – keep me realistic and let go of the idea of Ace joining our family. There was even another potential buyer for him. But in light of my brother's death, the sentiment was that you only live once, and you never know what might happen tomorrow. And so Ace became mine and I made it my goal to spend at least 10 minutes every day bonding with him, and time with Thomas doing his exercises. I didn't want to talk about how I was doing; I didn't even want to hear others' condolences. Horses don't expect you to talk – at least not with your mouth – and horses don't ask you questions about your life. They don't care if I brush my hair or wear yesterday's clothes. They want to know what we're going to do together, and if it involves grazing or treats, maybe a jog down the road.



Figure 15. Ace. Riding lesson on October 9, 2010.

It was through some of my fellow riders at this facility that I heard more about a local therapeutic riding center. They were offering a series of workshops open to the public, so one dry, hot summer afternoon, a friend and I went to learn about equine stretching and massage. During the hands-on portion, I found myself practicing alongside the center's director of EFL programs. Following the workshop, she took several of us on a tour of the facilities, and I learned that, in addition to the EFL program for youths, she was going to be starting a Veterans' program. I stayed in touch with her and attended volunteer orientation and training so I was ready to volunteer with the center when the next session began in August. Volunteering led to interning and research to help grow the Veterans' program. Over the year, I completed certification as an Equine Specialist in Mental Health and Learning through PATH Intl., and began the process of earning certification as a therapeutic riding instructor, which I successfully completed last May.

I am particularly proud of this because it embodies my growth in confidence. There were times during my instructor-in-training period that I was nervous and worried perhaps I wasn't cut out for this (similar to feelings I encountered while pursuing music education, and definitely while teaching college students). I cried while preparing for the riding and teaching portions of the certification test. During the certification weekend, itself, I had fleeting thoughts of not following through. What would happen if I just didn't show up? But I persisted, and though my performance was far from perfect, it was good enough to earn my certification, and for that, I am proud.

In my day-to-day teaching in the company of equines, I pride myself on my attention not only to developing certain skills, but to the equines and human-equine relationship. I feel almost a sense of surprise when I realize that I have formed opinions

regarding horsemanship and best-practices, because I remember when I felt such a novice that I only had room to grow, and everyone knew more than I did – I would believe almost anything anyone told me. I simply tried to absorb as much information as I could, and had no voice. Now I have reached a place I can absorb, critically analyze, and then become responsible for enacting and sharing ideas and information through my own daily horsemanship practices and teaching. Granted, I also will never be done learning or growing in any capacity. Rarely is there a single correct, one-size-fits-all approach for humans or horses. Following certification, I was fortunate to stay on teaching some of the EFL classes for older children and adolescents, but put that on hold until this dissertation is complete. I serve as a substitute when needed and attend functions as I am able. I have also stayed in touch with several of the participants from this study – one of whom went through the riding instructor certification process with me, and earned their certification.

Thomas and Ace have moved to live with a friend and her two geldings, and I have gotten back to riding with Jill as much as possible after a period of distance in our friendship. I look forward to many more hours together when the dissertation is done. She and Jack have made some positive changes in their lives, and getting away from that environment allowed space for my husband and me to develop our relationship. My husband – when we met, I was still living with Jack and Jill, and he was uncomfortable around horses. He started helping with chores and taking Thomas on walks with me, which progressed to a few rides in the adjoining open space. This continued when I moved Thomas and we brought Ace into the family. As his relationship progressed with me, so it progressed with the horses. Now he has his own saddle and will go to the horses without me. Scooping manure is one of his favorite pastimes, which he likens to a Zen

garden. He occasionally rides Ace, mostly takes him for walks, and he and Thomas are kindred spirits (Figure 16); both enjoy wandering and exploring. We even had Snickerz and Hazelnut join in our wedding (Figure 17).



Figure 16. Horse husband.



Figure 17. Wedding with Snickerz and Hazelnut.

The horses did cause tension in our relationship, especially early on, and when Ace joined the family. I spent more time and energy with the horses than with most people. Honestly, I prefer the company of horses to most people. Because of the horses and related commitments, I was often arriving late to or leaving early from family functions, straining my already limited availability, and experiencing additional stress as I worried (worry) about caring for the boys. Additionally, because horses are independent, living, thinking creatures, differences in ideas sometimes lead to frustration. With my husband, this meant either difference of opinion between him and the horses, directly, or between my husband and me with regard to the horses. Though I cannot

speak for my husband, I have seen these experiences as opportunities for growth as individuals and as a couple; opportunities for communication, for him to work through some frustration, and for me to practice patience, compromise, setting boundaries for myself and my needs, and letting go of some control (i.e., shutting my mouth).

Horses have become a part of me. Thomas and Ace have become a part of our family. Having horses in my life makes me a better, healthier individual, physically, cognitively, emotionally, and spiritually. I have learned about horses, in general, about different "horse-analities," about myself, about other people and how to interact with other people, about communication skills and patience and being mindful. Horses have helped me grow comfortable with myself, because they accept me as I am, and I have become more forthcoming and honest in a calm, emotionally stable way, because that is what allows me to be consistent and mentally present, which helps the horses be comfortable with me. Though I have no hard data to back it up, my guess is that being distracted and putting up a façade makes me unattractive as an unpredictable predator that cannot provide safety and might even draw other predators.

I transfer what I've learned through horses to other experiences and information and ideas, and I relate almost everything back to the horses – my interactions with horses help me make sense of the world. For example, several years ago, struggling to navigate my relationship with my parents, my counselor shared with me her insight that I could allow my parents to have responses and reactions. I did not need to try and prevent them or control them or assume responsibility for those responses. In reflecting on this idea, I could not help but relate to working with the horses, because with the horses, you cannot control or prevent certain behaviors and responses, and it's not usually personal. Ace is a

spooky horse by nature, and I don't expect to ever change that – I cannot stop him from spooking, and he's not doing it because he has it out for me. What I *can* do is work on our relationship, offer consistent, calm guidance, and employ strategies to help reduce the frequency and magnitude of spooks – from a full-blown bolt to an exaggerated flinch – and to help him recover more quickly.

Similarly, I have compared myself, my husband, and other individuals and experiences to horses I have worked with. There are lessons such as recognizing that certain behaviors do not make an individual "bad," and attempts to micromanage situations and other beings can make things worse; lessons about allowing opportunities for growth and change, setting boundaries, and improving communication skills. Responsibility lies with both parties. I do not want to allow myself to be walked on, kicked, bit, bucked off, or anything else unpleasant as a result of equine behaviors, but I also need to evaluate my approach and expectations. Am I being reasonable? Am I communicating effectively? Is something happening that I can reasonably prevent or mitigate through my actions and expectations? Even still, I compare other people to horses, I compare myself to horses, I mentally transfer certain situations and ideas to contexts with horses.

There are also the more concrete lessons related to physics, spatial reasoning and simple math, anatomy and physiology, kinesthetic awareness, and any number of other subjects. Calculating, based on the amount of hay the horses consume each day, how many small bales to purchase for the year, budgeting finances accordingly, and squeezing all those bales into the barn. Measuring the horses' height and length and girth size to estimate body weight in order to administer the correct dosages of medications. Learning

about a variety of injuries and illnesses, and their prevention and treatment. Learning more about how my balance and position impacts my horse's ability to balance and move. Teaching lessons about compassion and consideration for another, as well as motivating me to exercise, because why would I ask my horse to do something I'm not willing to do, myself? Encouraging creativity, assuming multiple perspectives, exercising problem-solving abilities, and adapting to fit various situations. Planning ahead. Having a plan, communicating it with the horse, and being consistent with my behaviors and expectations to achieve it. Looking at the horses' behaviors for their input (they will tell me if they do or do not want blankets, and if they do or do not want to go for a walk before dinner). These are but a few of the lessons I have learned working with horses. Horses have changed me. My experiences with the Veterans' program have changed me, though I will expound more on this in the discussion section of this dissertation.

CHAPTER III

REVIEW OF THE LITERATURE

Work and research with Veterans and equines in learning and therapeutic environments requires consideration of many factors, drawing from many disciplines. Here I discuss literature related to the human-animal bond and AAIs, specifically equines and EAATs, and active duty and Veteran service members, including military culture and AAIs with this particular population. I also draw from the fields of humanistic psychology and education, experiential learning and therapy, and transformative learning to help frame the existing and current research.

Human-Animal Interactions

Human and non-human animals share a long history, in which humans have used animals for food, have created clothing from their hides and tools from their bones, have traded animals like currency, have depended on them for transportation and protection, have looked to them as spiritual guides and symbols, and turned to them for socialization and companionship (see Dincauze, 2000; Serpell, 2010; Skeen, 2011; Walsh, 2009). There is evidence of non-human animals providing companionship to humans dating back 12,000 years, and evidence that the idea of animals as respected coequals gave way to increasingly hierarchical models of human-animal relationships with humans as separate and superior around 10,000 years ago (Dincauze, 2000; Ingold, 2000; Serpell & Paul, 2011). In terms of Western thought and practice, the Age of Enlightenment brought shifts in public perceptions of animals that included increases in sympathetic attitudes

toward animals (Serpell, 2010), further promoting the appeal of living and working with animals, and encouraging consideration of animal welfare. Several scholars have presented the idea of human-animal interactions, including pet-keeping and engaging in AAs, as *mutualistic* relationships (Serpell, 2011, p. 16), *reciprocal* relationship (Bekoff, 2013, p. 9), or social contracts (Oma, 2010), interspecies relationships characterized by trust and reciprocity in which both participating species benefit by associating with the other. The humans benefit from social support, and the animals benefit from food, water, and protection (Beck & Katcher, 1996; Serpell & Paul, 2011). Birke, Bryld, and Lykke (2004) and Oma (2010) further discuss the idea of mutual becoming, "where animals' behavior is formed by social interactions with humans and vice versa, leading to a fundamental reciprocity" (Oma, 2010, p. 179).

Currently, 65% of U.S. households own at least one pet, and Americans spend approximately \$58 billion annually on their pets (APPA, 2015). Fish are the most popular in terms of total pets owned in the U.S. (105.0 million), followed by cats (85.8 million), dogs (77.8 million), birds (14.3 million), small animals (12.4 million), reptiles (9.3 million), and horses (7.5 million) (APPA, 2015). A large body of research supports the importance of companion animals in humans' lives. Companion animals are associated with better physical and psychological health (Allen, Izzo, & Shykoff, 2001; Charnetski, Riggers, & Brennan, 2004; Friedmann, Katcher, Lynch, & Thomas, 1980; Friedmann & Thomas, 1995; McConnell, Brown, Shoda, Stayton, & Martin, 2011; Serpell, 1986; Wells, 2009). Humans incorporate companion animals into social networks, frequently considering them as family and friends (Albert & Bulcroft, 1988; Baumgartner, 2010; Beck & Katcher, 1996; Cohen, 2002; Spencer & Pahl, 2006; Walsh, 2009) and looking to

them as confidants (Beck & Katcher, 1996). Companion animals provide an outlet for nurturing behavior, through which the human finds a sense of purpose (Beck & Katcher, 1996). Humans perceive companion animals as providing emotional support, including unconditional love (Baumgartner, 2010; Beck & Katcher, 1996; Charles, 2014; McConnell et al., 2011; Triebenbacher, 1998; Veevers, 1985), and contributing to development of prosocial characteristics and behaviors such as empathy, interpersonal trust, and cooperation (Baumgartner, 2010; Hyde, Kurdek, & Larson, 1983; Melson, Peet, & Sparks, 1991; Poresky & Hendrix, 1990; Triebenbacher, 1998; Veevers, 1985). Finally, companion animals contribute to increased self-esteem, self-concept, and autonomy (McNicholas & Collis, 2001; Poresky, Hendrix, Mosier, & Samuelson, 1988; McConnell et al., 2011; Van Houte & Jarvis, 1995), and serve as conscious and unconscious projections of our selves (Baumgartner, 2010; Beck & Katcher, 1996; Simon, 1984; Veevers, 1985).

Though there continues to be something of a hierarchical attitude toward animals, with distinctions in language and law between livestock, animals intended for food, laboratory animals, service animals, and pets or companion animals, increasing attraction toward companion animals has contributed to an overall growth in public concern for animal wellbeing, welfare and rights (Serpell, 2010). Attention to human-animal relationships is extending beyond the parameters of companion animals. Anthony (2003) encourages bonds between farmers, stockpersons, and animal handlers in agricultural setting, again citing benefits to both human and animal counterparts. Simmonds (1996) and Hart (1996) observed the development of petlike relationships between workers and laboratory animals, which might mutually benefit the animal caregivers and reduce stress

for the animals (Bayne, 2002; Chang & Hart, 2002). Hosey and Melfi (2010) found that over half of zoo professionals surveyed felt they had established bonds with at least one zoo animal, and that the respondents believed this bond benefitted themselves and the animal operationally (e.g., easier to handle) and affectively (e.g., enjoying contact with the other party).

With this shift, diverse perceptions have emerged regarding the purpose, roles, and responsibilities of both humans and animals, increasing discussions related to issues of animal rights, welfare, wellbeing, cognitive and affective capacities, anthropomorphism¹, and even the language used to describe animals. Linzey and Cohn (2011), for example, recommend elimination of derogatory terms such as "vermin," "pests," "wild animals," and "pets" in favor of terms such as "free living," "free roaming," and "companion" animals, and that human counterparts be identified as "human caregivers" rather than "owners." So, too, grows the body of research and scholarly work examining human and animal experience. However, the current body of literature is still reflective of the anthropocentric mindset, dominated by research examining the benefits to humans. Interest in animals' experiences in their various capacities (e.g., livestock, companion animals, service animals) is increasing (e.g., Bekoff, 2007; Serpell, Coppinger, Fiine, & Peralta, 2010), and researchers are beginning to answer this through

¹ The discussion of anthropomorphism is, itself, a controversial topic, with scholars cautioning against possible negative impacts of anthropomorphism, and also cautioning against missing or being closed to recognizing animals' mental states in attempts to avoid anthropomorphizing, arguing that anthropomorphizing is a natural human attempt to understand and relate to animal states of being, we are simply limited in our ability to understand and express by our verbal language. Further, the partner of anthropomorphism is anthropocentrism, which inherently colors perspectives and understandings of relationships between human and non-human animal beings (see Bekoff, 2007; Serpell, 2005; Tyler, 2003)

behavioral observations and physiological measures (e.g., Glenk et al., 2014; Kaiser et al., 2006), though the body of literature is much smaller. This is reflected in the realm of AAI research.

Animal-Assisted Interventions

As anecdotal and scientific evidence touted the contributions of animals to humans' wellbeing, humans began incorporating animals more purposefully into a variety of educational and therapeutic environments in order to garner similar positive effects. Health care professionals began to model what are now recognized as AAIs in the 18th century (see Serpell, 2010). In 1964, Boris Levinson coined the term *pet therapy*, a practice in which pets were purposefully introduced into clinical environments and/or residential settings. Levinson (1965) identified several benefits of introducing pets into the “therapy constellation” (p. 695). Since Levinson’s work in the 60s and 70s, a myriad of additional qualitative and quantitative studies have examined the roles, benefits, and drawbacks of incorporating animals into learning and therapeutic environments.

Physiological responses. Friedmann et al. (1980) produced one of the most recognized pieces of research in human-animal interaction circles when they reported a significant correlation between pet ownership and 1-year survival rates among patients hospitalized with myocardial infarction or angina pectoris. Since that time, researchers continue to examine the impact of AAIs on humans' (and sometimes the animals') physiological responses such as changes in hormones (e.g., cortisol, epinephrine, norepinephrine), heart rate, and blood pressure. Generally, interactions with animals (usually dogs) are associated with lower heart rate and blood pressure (Cole, Gawlinski, Steers, & Kotlerman, 2007; Friedmann, Katcher, Thomas, Lynch, & Messent, 1983;

Kaminski, Pellino, & Wish, 2002; Nimer & Lundahl, 2007), compared with no-intervention and alternate-intervention (e.g., human visitor) controls (e.g., Cole et al., 2007). Motooka, Koike, Yokoyama, & Kennedy (2006) considered heart rate variability in healthy elderly adults walking with or without an unfamiliar dog for 30 min, reporting that heart rate variability was significantly higher when walking with the dog compared to walking alone, suggesting a relaxed state and increased parasympathetic activity in those with the dog. AAIs might even help with pain relief in hospitalized patients (Braun, Stangler, Narveson, & Pettingell, 2009) and decrease use of pain killers among rehabilitation facility residents (Lust, Ryan-Haddad, Coover, & Snell, 2007).

However, it is also important to note that in some cases, results were mixed, such as Demello's (1999) study of adults recovering from a cognitive stressor. Stroking a dog did not impact blood pressure, but did reduce heart rate. Conversely, Tsai, Friedmann, and Thomas (2010) reported no significant decrease in heart rate or diastolic blood pressure in an AAI group compared with a control, though there was a significant decrease in systolic blood pressure. Somervill, Kruglikova, Robertson, Hanson, & MacLin (2008) noted no immediate significant change in blood pressure or heart rate while college students held a dog or cat in their laps; diastolic blood pressure significantly decreased immediately following the session with the animal, but still no significant change in heart rate. In other cases, there was simply no significant differences in physiological measurements between animal and control groups (e.g., Athy, 2005; Barker, Rasmussen, & Best, 2003; Hansen, Messinger, Baun, & Megel, 1998; Straatman, Hanson, Endenburg, & Mol, 1997; Tsai, 2007), or cases where non-animal alternate activities seemed more effective than animal-based activities. For

example, undergraduate students' blood pressure measurements were significantly lower when petting a dog versus chatting or reading, but resting quietly produced even lower blood pressure than petting the dog (Grossberg & Alf, 1985). Finally, Somerville, Swanson, Robertson, Arnett, & MacLin (2009) reported that interactions with a therapy dog had the exact opposite of the hypothesized effect among a population of children diagnosed with Attention Deficit Hyperactive Disorder (ADHD), exciting participants rather than calming them as evidenced by increased blood pressure and heart rate.

Endocrine responses. There is mounting evidence that AAIs lead to decreased salivary and serum cortisol levels (Barker et al., 2005; Beetz et al., 2011; Odendaal, 2000; Odendaal & Meintjes, 2003; Viau et al., 2010), further supporting the notion that interactions with animals contribute to reduced stress, in some cases even more so than interactions with friendly humans (e.g., Beetz et al., 2011), quiet reading (e.g., Odendaal, 2000; Odendaal & Meintjes, 2003), or quiet rest (Barker et al., 2005). In contrast, Lass-Hennemann, Peyk, Streb, Holz, & Michael (2014) found no significant differences in blood pressure, heart rate, or salivary cortisol levels between an AAI group and control groups, though participants in the AAI (dog) group subjectively reported experiencing less stress and anxiety compared to the other groups. However, in this study, focused interactions with the dog were limited to a 2 min. period in which participants could familiarize themselves with the dog; following this period, participants watched an 11 min film compiled of traumatic scenes, during which they were allowed to engage in physical contact with the dog but were asked to continue watching the film. This limited interaction with the dog might have impacted the outcomes, considering that Odendaal (2000) observed a significant decrease in blood pressure between 5 and 24 minutes of

contact with a therapy dog following approximately 10 minutes of time to get familiar with the dog and environment, and Beetz et al. (2011) similarly reported a strong positive correlation between cortisol levels and time spent in physical contact with the animal (in this case, a dog).

Measures of epinephrine and norepinephrine have yielded mixed outcomes. Barker et al. (2005) found no significant changes in the hormone levels among adults following 20 minutes of interaction with a therapy dog and healthcare professional. On the other hand, Cole et al. (2007) reported significantly lower epinephrine and norepinephrine in adults hospitalized with heart failure during and following visits from a therapy dog when compared with visits from a human and no visitor. Finally, Olmert (2009) suggests oxytocin plays a role in human-animal relationships, an idea supported by Handlin et al. (2011), Odendaal (2000), and Odendaal and Meintjes (2003), who found significant increases in human oxytocin levels after brief sessions of dog petting. Odendaal (2000) also suggested the degree of the bond might further influence the level of oxytocin, reporting that participants demonstrated greater increases in oxytocin with their own dog compared to an unfamiliar dog. This finding is somewhat challenged by Miller et al. (2009). Although female participants demonstrated significantly increased serum oxytocin when interacting with their own dog as compared to reading, male participants demonstrated no significant increases in oxytocin following interactions with their dogs compared to the reading condition; in fact, there was a slight decrease in oxytocin in both conditions.

In considering physiological signs of stress in the therapeutic animals, Odendaal (2000) and Odendaal and Meintjes (2003) studied changes not only in humans but also in

participating dogs, reporting increases in β -endorphins, oxytocin, prolactin, phenylacetic acid, and dopamine in both species, suggesting a mutually beneficial interaction. Cortisol levels, however, decreased significantly only in the human participants, with nonsignificant changes in the dogs; a slight decrease reported by Odendaal (2000) and slight increase reported in Odendaal and Meintjes (2003). Glenk et al. (2014) similarly found no significant difference in cortisol levels of 5 experienced therapy dogs comparing a non-working day and participation in therapy sessions, with a trend toward decreasing pre- to post-session cortisol levels.

Psychological and behavioral outcomes. A number of studies suggest that AAIs positively impact psychological and behavioral outcomes among various age-groups and populations. Meta-analyses conducted by Souter and Miller (2007) and Nimer and Lundahl (2007) and systematic reviews by Beetz et al. (2012) and Kamioka et al. (2014), support that companion animals and AAIs have the potential to significantly reduce symptoms of depression (Berget, Ekeberg, Pedersen, & Braastad, 2011; Pedersen et al., 2011; Souter & Miller, 2007), anxiety (Berget et al., 2011; Berget, Skarsaune, Ekeberg, & Braastad, 2007; Morgan, 2008; Pedersen et al., 2011), and feelings of loneliness (Banks & Banks, 2002), as well as improve mood (Burgess, 1997) and perceived quality of life (Urbanski & Lazenby, 2012). Hansen et al. (1999) reported that, even though the presence of a therapy dog did not significantly impact children's heart rate and blood pressure, the presence of the dog did significantly decrease observed behavioral distress. Research further supports AAI contributions such as: reduced aggression in youths (Davis, 1987; Long, 2009); development of empathy (Burgon, 2011; Sprinkle, 2008) and altered normative beliefs about aggression in youth (Sprinkle, 2008); enhanced anger

management and emotional control (Hanselman, 2001; Parish-Plass, 2008); improved coping abilities and mechanisms (Berget, Ekeberg, & Braastad, 2008; Kaczor, 2009); increased confidence, self-esteem, and self-efficacy (Berget et al., 2007; Berget et al., 2008; Burgon, 2011; MacDonald & Cappo, 2003); increased internal locus of control (MacDonald & Cappo, 2003); improved attention (Bass, Duchowny, & Llabre, 2009; Macauley & Gutierrez, 2004), and increased self-image, self-control, trust, and general life satisfaction (Bachi, Terkel, & Teichman, 2012).

As with physiological factors, results regarding the relationship between AAI and psychological or behavioral outcomes have been mixed. Barker, Pandurangi, & Best (2003), Straatman et al. (1997), and Wilson (1991) reporting no significant decreases in self-reported anxiety in the presence of a dog, compared with no-dog conditions, and Malakoff (2009) finding that AAT had no greater effect than traditional cognitive-behavior therapy for youths with emotional and behavioral disorders. Barker and Dawson (1998) found no significant differences in anxiety between AAT and therapeutic recreation conditions among psychiatric patients, though the AAT participants did show decrease in anxiety from the beginning of the session to the end of the session. Similarly, though Berget et al. (2011) reported a significant decrease in symptoms of depression within AAT participants, there was no significant difference between the AAT and control groups. Berget et al. (2007) found increased self-efficacy and decreased anxiety, but no significant differences in quality of life, coping ability, or depression symptoms, Berget et al. (2008) also reported no significant changes in quality of life. Pepper (2000) found no significant differences in positive affect between dog-present and dog-absent conditions. Johnson, Meadows, Haubner, and Sevedge (2008) reported no significant

differences in mood or sense of coherence among patients with cancer following dog visits, though patients who interacted with the dog perceived their health as improved.

Once again, researchers also remind that the nature of the interactions can impact the outcomes. Direct and purposeful interactions with animals yield more positive and significant outcomes than less direct interactions, such as group visits with a dog (Banks & Banks, 2002, 2005) or the presence of aquariums (Barker et al., 2003) and aviaries (Holcomb, Jendro, Weber, & Nahan, 1997). Banks and Banks (2002) also noted that previous pet ownership strongly correlates with desire to participate in AAIs.

The potential for AAIs to compliment human learning has also been explored, though not in as much depth. Beetz et al. (2012) cite limited evidence that AAIs contributes to learning in traditional settings, though the presence of an animal might support preconditions for learning, such as concentration, attention, motivation, relaxation, and a "pleasant social atmosphere" (p. 10). For example, there is evidence that children in a classroom paid more attention to the teacher when a dog was present (Kotrschal & Ortbauer, 2003). Pre-school children with and without language impairments adhered to instructions more closely in the presence of a live dog compared to toy dog and human conditions (Gee et al., 2009), needed fewer prompts for a memory task (Gee et al., 2010b), and performed more accurately on a match-to-sample task (Gee et al., 2010a). Scholars such as Arkow (2010), Bekoff (2013), and Morris (2014) further argue that there is not only potential but great need to incorporate study of nonhuman animals and the relation of nonhuman animals to human animals into humane education.

Social outcomes. In many cases, AAIs have been associated with improved or increased prosocial behaviors, such as awareness, responsiveness, cooperation,

playfulness, and vocalizations (Macauley & Guteirrez, 2004; Marr et al., 2000; Petrongelli-Halloran, 2010; Sprinkle, 2008). There is some evidence that the presence of animals increase perceived trustworthiness (Guéguen & Ciccotti, 2008; Schneider & Pilchak Harley, 2006) and friendliness (Wells & Perrine, 2001), though more research is needed in this area (Beetz et al., 2012). A common rationale for engaging in AAIs and bringing pets into the home – especially those with children – is to develop empathy and compassion toward others (see Arkow, 2010). Though human- and animal-oriented empathy may be distinct constructs (Paul, 2000), and the mere presence of an animal may not be sufficient to develop empathy – the strength of the bond with the animal, nature of interactions, and additional factors must be considered (Arluke, 2003; Daly & Morton, 2006; Poresky & Hendrix, 1990) – there is some research supporting this idea. Burgon (2011) observed evidence of youths-at-risk empathizing with equines in an EFP program. Hergovich, Monshi, Semmler, & Zieglmayer (2002) found that children in a classroom with dogs scored higher in field independence and empathy toward animals than a control classroom with no dog. Similarly, Bryant (1985) and Poresky (1996) identified AAI as increasing individuals' capacity for empathy toward other humans.

Research also suggests an indirect influence of AAI on social interactions, promoting not only increased socialization with the animal, but with other humans and the environment. For example, the presence of a classroom dog was associated with better social integration among first-graders (Hergovich et al., 2002; Kotrschal & Ortbauer, 2003). Patients recovering from substance abuse rated the therapeutic alliance with the therapist more positively when an animal was incorporated compared to a control group with no animal (Wesley, Minatrea, & Watson, 2009). Bass et al. (2009)

reported increased motivation to interact with others and an increase in both quantity and quality of social interactions among children, and a number of researchers have noted improved verbal and nonverbal communication skills (Kovács, Bulucz, Kis, & Simon, 2006; Macauley & Gutierrez, 2004; Vidrine, Owen-Smith, & Faulkner, 2002) as a result of participation in AAI.

However, outcomes were mixed. For example, Villalta-Gil et al. (2009) examined whether dog-assisted therapy improved social contact, symptoms, and quality of life related to social relationships among adult patients with chronic schizophrenia; when compared to a control group with no dog, between-group comparisons yielded no significant differences. Kramer, Friedmann, & Bernstein (2009) reported increased social interactions in nursing home residents with dementia in the presence of both a live dog and robotic dog (AIBO) when compared with the control (person, alone), bringing in to question the necessity of having a live animal participating. Cusack (1988) cited cases in which the presence of a family pet might negatively impact the relationship, or might be harmed, serving as an outlet for dysfunctional family behaviors (e.g., a family member hitting the animal rather than the other person). As practitioners assume responsibility for the well-being of the animals, AAI might even be contraindicated in certain cases, such as working with individuals with a history of animal abuse (Mallon, 1992; Serpell, Coppinger, Fine, & Peralta, 2010).

Why the Horse? Human-Equine Bond and Equine Intervention Models

Riding as therapy has been traced back to ancient Greece, when horseback riding was prescribed to improve physical and mental wellbeing (Snider, Korner-Bitensky, Kammann, Warner, & Saleh, 2007) and Hippocrates, who used riding as means to

improve physical condition and stimulate senses (Granados & Agis, 2011; Wanneberg, 2014). In 1870, Dr. John Brown of Scotland published a rationale for horseback riding therapy, postulating that, given the appropriate mount, it could provide both sedating and stimulating effects as needed (Mayberry, 1978). The latter half of the 20th century brought rapid growth of the therapeutic incorporation of horses, with literature emerging in Scandinavia following the 1940s polo epidemic (Ratliffe & Sanekane, 2009; Sterba, Rogers, France, & Vokes, 2002), followed soon after by the foundation of therapeutic riding centers in Denmark and Norway, then England and other European countries in the 1950s, and finally spreading to North America in the 1960s by way of Canada and then the United States (Mayberry, 1978; Snider et al., 2007).

Initially, hippotherapy activities with individuals presenting physical disabilities were among the most common with horses, and the most prevalent within research. However, Germany was influential in standardizing a model of therapeutic riding emphasizing medicine, psychology-education (specifically for children diagnosed with behavioral and emotional disorders), and horsemanship (Abrams, 2013; Snider et al., 2007; Spink, 1995). Equines are now incorporated into riding, driving, interactive vaulting, and ground-based activities in order to gain a variety of physical, cognitive, social, and emotional outcomes with equally diverse populations, from children diagnosed on the Autism spectrum to youths "at risk" to adults presenting signs of dementia (see Latella & Abrams, 2015; Selby & Smith-Osborne, 2013). The widespread integration of equines spurred the formation of organizations such as PATH Intl., EAGALA, Eponaquest (formerly Epona Equestrian Services), and the Equine

Experiential Education Association in the US, in order to help unify practices and standards, though a range of models and diverse language are still prevalent in the field.

Research has similarly grown exponentially, and the growing number of studies of therapeutic horsemanship, therapeutic riding, and EFL/P programs have yielded diverse physical, cognitive, psychological, and social outcomes, such as improvements in muscle tone and endurance, physical strength, memory, knowledge of the horse, understanding of safety, confidence, eye contact, behavioral control, and response to physical contact, spanning a variety of populations, from children to elderly (see Latella & Abrams, 2015; MacKinnon, 2007). For example, EAAT have been reported to: increase perceptions of social support (Hauge, Kvalem, Berget, Enders-Slegers, & Braastad, 2013); increase prosocial behaviors (Bass et al., 2009); increase self concept, self-efficacy and self-esteem (Bizub, Joy, & Davidson, 2003; Cawley, Cawley, & Reiter; 2009; Ewing, MacDonald, Taylor, & Bowers, 2007; Whittlesey-Jerome, 2014); increase self-confidence (Chandler, 2005; Kersten & Thomas, 2004, in Frewin & Gardiner, 2005; Moreau, 2001); increase positive behaviors (Trotter, Chandler, Goodwin-Bond, & Casey, 2008), such as self-regulation behaviors (Gabriels et al., 2012); decrease depression symptoms (Whittlesey-Jerome, 2014); reduce anger, frustration, and aggression (Chardonens, 2009; Kaiser, Spence, Lavergne, & Bosch, 2004; Trotter et al., 2008); reduce negative behaviors (Dabelko-Schoeny et al., 2014; Trotter et al., 2008); reduce tension, stiffness, and pain while increasing balance and improving emotional state (Håkanson, Möller, Lindström, & Mattsson, 2009); and increase independence, self-support, and ability to live in the moment, paired with fewer feelings of guilt, resentment, regret, and fears related to the future (Klontz, Bivens, Leinart, & Klontz, 2007). In many

cases results have been mixed. For example, Ewing et al. (2007) utilized a mixed-methods study to examine the impact of an EFL program with youths with severe emotional disorders (SED). Quantitative measures of self esteem, empathy, locus of control, depression, and loneliness yielded no significant changes, but qualitative case studies suggested the program was quite effective in improving symptoms, behaviors, and perspectives of participants, just not uniformly for all participants. Selby and Smith-Osborne (2013) and Gabriels et al. (2012) also highlight that though a number of studies are limited in design and level of detail reported.

Based on studies such as those noted above and widespread anecdotal accounts, there are a number of hypotheses as to why equines are effective partners in human learning and therapeutic processes, including an innate attraction to the idea of the horse and characteristics embodied by the horse, such as freedom, spirit, grace, vulnerability and power embodied (see Frewin & Gardner, 2005; Karol, 2007), and an attraction to the idea of achieving oneness with the horse (Birke & Brandt, 2009). There is a sense of mystique or magic around horses as having healing powers, proliferated by popular media outlets advertising the healing power of horses. At a more practical level, researchers and practitioners have cited several hypotheses as to why horses make ideal partners in learning and therapeutic processes, including:

- Horses are socially-oriented beings, and domesticated horses are primed for forming mutually beneficial relationships with humans (Goodwin, 1999).
- Horses provide a unique experience based on their novelty, size, the ability to ride them, the ideas about horses and what they represent noted

above, and other species-specific characteristics (see Miller, 1995a, 1995b, 1995c). Such factors can make potentially unattractive activities (like therapy) more appealing and exciting through involvement of the horse, leading to increased motivation and persistence (Burgon, 2011; Karol, 2007; Masini, 2010). These unique equine qualities can also push humans outside of their comfort zone, and this discomfort can be a catalyst for growth and development.

- Generally, equines bring cooperation, patience, willingness, receptiveness, and a number of other desirable characteristics to the environment (Ewing et al., 2007; Karol, 2007; Selby & Smith-Osborne, 2013; Vidrine et al., 2002). Each equine also possesses unique physical and psychological traits, including unique personalities (or "horse-analities"), preferences, and idiosyncrasies (Hausberger, Roche, Henry, & Visser, 2008; Miller, 1995; PATH Intl., 2014a), creating vast possibilities for human-equine pairings.
- Horses are perceived to offer nonjudgmental companionship and acceptance without expectation or prejudice. They don't care what clothes you wear, what grades you get in school, how many friends you have, how much income you make, or what you did (or didn't do) yesterday (Abrams, 2013).
- There are a variety of possible equine activities, adaptable for different abilities and needs (see Latella & Abrams, 2015), which blend exercise,

recreation, and psychosocial development (Selby & Smith-Osborne, 2013).

- Equine activities are highly sensory-oriented, incorporating visual, olfactory, auditory, tactile, gustatory, and vestibular information. Equine activities also tend to be highly rhythmic in nature (Karol, 2007), and rhythm and physical contact with the horses (e.g., touching, grooming) can help lower physiological arousal. Additionally, the environment, itself, separates this approach from more traditional approaches. Individuals are outside of the traditional office setting – oftentimes literally outdoors – in a physically stimulating environment (sights, sounds, smells, textures, and physical activity).
- The horse fulfills basic needs, such as emotional closeness, safety, belongingness, social support, and offering the opportunity for nurturance (Burgon, 2011).
- Survivors of trauma can relate to the equine status as a prey animal, including hypervigilance and impulse to escape or hide from threatening situations (Klontz et al., 2007; Vidrine et al., 2002).
- The horse encourages – even demands – mindfulness and presence in the "here and now" (Frame, 2006; Klontz et al., 2007; Whittlesey-Jerome, 2014). This can also provide a redirection of attention, such as focusing on breathing with the horse rather than anxiety.
- Horses communicate nonverbally. This demands attention humans learn, be aware of, and utilize nonverbal communication cues, beginning with

being attentive to energy, which requires focus, control, and sensitivity (Karol, 2007; Porter-Wenzlaff, 2007). This can also be inviting to individuals who prefer or better relate to nonverbal communication (Grandin, 2011; Grandin, Fine, & Bowers, 2010; Grandin & Johnson, 2009). This can translate to relationships with other humans.

- Horses are highly sensitive and provide immediate, direct (clear), and authentic feedback to the human, essentially mirroring the physical and emotional signals of the human without assumption or criticism. They are what Latella and Abrams (2015) refer to as "living biofeedback beings for humans" (p. 116). You get what you give. Horses don't lie. This encourages participants to be aware of their physical cues and emotional states, as horses perceive and respond to such information (Birke et al., 2011; Frewin & Gardiner, 2005; Hunt, n.d.; Irwin & Weber, 2001; Karol, 2007; Krueger, Flauger, Farmer, & Maros, 2011; Lentini & Knox, 2008; Schultz, Remick-Barlow, & Robbins, 2007). Further, participants should address incongruencies to achieve an authentic self, as horses show signs of discomfort toward or are unresponsive to individuals who are incongruent (e.g., demonstrating bravado externally, but feeling fearful and insecure internally; Cody, Steiker, & Szymandera, 2011). Ascriptions of behaviors to horses can similarly be reflective of the human, themselves (e.g., if I am calling my horse stubborn, is the horse really being stubborn, or am I being unclear/unreasonable/unengaged?) (Frewin & Gardiner, 2005; Kersten & Thomas, 2003).

- In addition to fostering personal awareness, emotional growth and healing, the human-equine bond potentially contributes to humans' emotional intelligence (Shambo, Seeley, & Vonderfecht, 2010).
- The equine-human bond offers opportunities to learn about and practice relationships, experience mutual trust and respect (Frewin & Gardiner, 2005; Kunz, 2008; Masini, 2010; Porter-Wenzlaff, 2007), and practice nurturing behaviors (Burgon, 2011). Further, this bond might encourage consistent continued engagement (Shambo et al., 2010).
- Social interactions often occur as a result of the equine activities, such as socializing in class with other riders (e.g., Håkanson et al., 2009; Vidrine et al., 2002)
- Horses can help establish and enhance the therapeutic alliance (Froeschle, 2009; Karol, 2007; Selby & Smith-Osborne, 2013).
- Working with horses – 1,000 + lb independently-thinking animals – encourages development of boundaries, effective communication, and can enhance self-esteem while fostering empowerment and sense of accomplishment (Abrams, 2013; Meinersmann, Bradberry, & Roberts, 2008; Shambo et al., 2010; Whittlesey-Jerome, 2014). This can also contribute to development of leadership abilities (Gehrke, 2009).
- Horses provide ample opportunity to teach and learn through metaphor, such as the idea of horses literally bearing our weight (Karol, 2007).
- Reflecting on herd behaviors and different horse-analities offers humans a chance to learn more about themselves and social dynamics, and sage

horseman advice can help in understanding humans, such as: "This isn't about making the horse learn, it's about allowing him to learn. He maybe has to go through some troubled times in order to learn. They're going to make mistakes while they learn. If you get too critical about mistakes, then they stop trying to work at figuring it out. Don't worry if he doesn't get it right at first. He just doesn't know." (Hunt, n.d.)

- Equine experiences can transfer to other contexts (Karol, 2007).

A Two-Way Relationship: Considering Humans' Impact on Equines

Much of the research on human-equine relationships, including the research cited above, centers on the human experiences. However, if we are truly considering the equines as partners engaging in a dynamic experience, why is there not more consideration of the experience of the equine?

Equines and equine behavior: An overview. Equines, by design, are grazing herd animals. Feral horses have been observed living in harems (one stallion and a number of mares and immature horses), bachelor (all male), and mixed multiple male and female groups, typically occupying undefended, nonexclusive areas (home ranges), though some defend exclusive territories (Goodwin, 1999, 2007; McCort, 1982; McGreevy, 2004; Salter & Hudson, 1982). Physiologically, they have evolved to graze for approximately 50-60% of the day while in motion; distances travelled each day depend on availability of food and water, also influenced by factors such as shelter, weather, insects, other herds, and time spent in activities like foraging and mating (Mayes & Duncan, 1986; McGreevy, 2004). Within herds, equines frequently form bonded pairs, showing preference for particular companions with whom they engage with mutually

beneficial activities, such as mutual grooming (allogrooming), taking turns keeping watch while the other rests, and otherwise providing social support (Goodwin, 1999, 2007).

Play is also an important component of equine social development and behavior among young and mature equines (Fraser, 2010; Goodwin, 1999).

Equine survival mechanisms, which shape many of their behaviors, include fight and flight responses, as well as their group membership. They rely on their highly developed social interactions, sensory system and morphology for survival (Goodwin, 1999, 2007), establishing social order and cohesiveness within herds, remaining alert to their surroundings, and taking cues from their herdmates. Goodwin (1999) explains that, given the importance of social behaviors and group membership to their survival, social behavior functions to minimize conflict within the group, and overt aggression, as well as unresolved dominance relationships, is rare; rather, free-ranging equine society is founded on kinship, recognition and respecting another's space. Aggression has been observed more frequently with domesticated equines in competition for limited resources and often related to constantly shifting group membership (Goodwin, 1999, 2007; Houpt & Keiper, 1982).

There are numerous ways to describe and interpret equine body language, influenced by a number of contextual and even genetic factors (Goodwin, 2007). Some, especially in domestic situations, are less understood and may even have multiple meanings, such as juvenile snapping behavior (juveniles stretch the head and neck, draw back the lips, and snap or chew toward older herd-mates), or licking-and-chewing, frequently associated with submission, relaxation, or thinking, but with little literature to support these interpretations (Goodwin, 1999). Other labels for classifying behaviors

often include relaxed, interested or curious, alert, aggressive, angry, aroused, anxious, fearful, friendly, unfriendly, sick, and submissive (see Hill, 2006). Very broadly, behaviors might be described in the context of two categories: content and distressed. Content behaviors signifying the equine is okay with the status quo might include signs of comfort, relaxation, positive engagement (i.e., attentive, interested, curious), and even arousal or submission with the absence of anger, fear or anxiety, like casually moving away from a dominant horse or running and kicking during play. Specific signs might include relaxed or appropriately engaged muscles (if the equine fully relaxes, they will fall over), relaxed or closed eyes, relaxed or "cocked" hind leg, drooping lip, rolling and laying down, pricked or forward ears, normal movement, possibly working the mouth licking and chewing, and the presence of normal functions of body systems (e.g., engagement of the sensory system, regular digestive processes, normal respiration and heart rate). Signs of distress, which encompass states of high alert, fear, anxiety, aggression, and otherwise not okay with the current circumstances, can include a freeze, flight, or fight response (i.e., restricted or heightened motion), increased muscle tension, wide eyes, flared nostrils, blowing or snorting, clamping or swishing the tail, pawing, pinned ears, kicking, striking out, rearing, bucking, lethargy, laying down or rolling abnormally, focus of the senses on toward the stimulus (looking, listening, smelling, and even using vocal communication), and abnormal system functions (e.g., ceasing of digestive functions, significantly reduced or heightened respiration, heart rate, and temperature). Again, behaviors might have multiple interpretations, making it necessary to consider the context of the situation and individual response patterns of the equine (what is normal for one horse might be abnormal for another), and warranting continued

research of equine behaviors in a variety of contexts. Horses also use a range of vocal communications, such as grunting, nickering, whinnying or neighing, urgent calling or bellowing, and squealing (see Hill, 2006). As with body language, the message behind vocal cues may vary, necessitating consideration of context and the individual equine in order to more accurately interpret the meaning. One horse might squeal and kick in an aggressive way, while another is indicating a desire to play.

Domestication. Humans first hunted equines for meat and hides, with human hunting habits likely contributing to the extinction of wild horses in Eurasia. There is evidence of domestication and utilization of equines in human society beginning approximately 6000 years ago, with equines first serving as sources of meat, milk and hide, followed by use for packing and laboring, and at some point, riding, though there is debate over when the latter began (Clutton-Brock, 1992; Goodwin, 1999, 2007; Kelenka, 2009). Equines have been incorporated into human society, going to war, pulling plows and carriages, appearing as the subject of art and literature, and increasingly being used for sport and as companion animals (Copeland, 2013; Goodwin, 1999; Hausman & Hausman, 2003; Raber & Tucker, 2005).

As humans have domesticated equines, they introduce circumstances and practices contrary to equines' origins. First, the mere existence of human-equine relationships is contradictory, as the prey (equines) interact socially with the predators (humans), though Goodwin (1999) suggests that many features of equine behavior predisposes them to interspecies cooperation with humans. Humans further ask equines to suppress or overcome their instincts in other ways, restricting equines' movement, limiting their roaming behavior and obstructing their ability to flee from danger. Humans

alter equines' diet and eating habits, often feeding hay or grain-based diets two or three times daily, rather than supporting the natural continuous foraging habits. Humans alter equines' social structure, separating and isolating equines, assigning them to herds (rather than letting the equines form their own herds), and gelding males. Finally, humans introduce experiences and equipment not encountered in the wild, such as saddles and bridles, farriers, wormers, vaccines, veterinary care, dentistry, and alternative therapies, driving cattle in feedlots, racing on circular tracks, parading in crowded arenas, and helping control crowds in cities and at large public events. Indeed, humans have drastically altered the "natural" equine lifestyle, and they have adapted remarkably.

As humans have modified the equine lifestyle, equines' psychological responses might persist, leading to what might seem to be abnormal behaviors, referred to as vices or, more accurately, stereotypies (Cooper & Albentosa, 2003; Cooper & McGreevy, 2007). Common "abnormal" behaviors include cribbing, wind-sucking, weaving, pacing, and chewing on or eating foreign substances (e.g., fences or bedding; McGreevy, French, & Nicol, 1995; Nicol, 1999b), and frequently associated with stabling, being observed between 10 and 40% of stabled horses (Nicol 1999a). There are also documented cases of self-harm related to physical discomfort or environmental conditions (Houpt, 1983; McDonnell, 2008).

Such behaviors and symptoms have been suggested as signs of poor welfare, boredom, aversion, frustration, and stress, and suggestions for dealing with such behaviors have focused both on changing the environment and preventing or eliminating the behaviors, rather than focusing on underlying causes (see Cooper & McGreevy, 2007). However, though often perceived in these cases as deviant behaviors, these are

actually normal, even adaptive, equine responses to abnormal, human-created circumstances (Cooper & Albentosa, 2005; Cooper & McGreevy, 2007; Hothersall & Casey, 2012; Nicol, 1999b), warranting more thorough consideration of potential causes and treatment strategies, which might include a combination of environmental and behavior modification (Cooper & McGreevy, 2007). Further, stereotypies might persist even when circumstances have changed, so they are not always indicative of high stress levels (McGreevy, 2004), and some might prove adaptive, such as oral stereotypies which increase salivary flow, reducing the acidity of the gastric tract and speeding digestion (Nicol, 1999b). There is also evidence that many stereotypies are associated with dopaminergic activity, reinforcing these behaviors through a built-in reward system (McGreevy, 2004).

Not all equine responses to human-created conditions are visible; Murray, Grodinsky, Anderson, Radue, and Schmidt (1989) reported an 89% incident rate of gastric ulcers in horses who were racing, compared to a 59% prevalence rate among non-racers. Erber et al. (2013) reported increased cortisol concentrations and heart rate, in addition to decreased movement, when young mares were transferred from a group stable with paddock access to individual box stalls for training.

Human-equine relationships. Human-equine interactions also play an important role, both indirectly, as humans create the environment of which the equine is part, and directly, as humans engage with the equines. In direct engagements, humans tend to emphasize – even overemphasize – the significance of dominance in this relationship (Goodwin, 1999) compared with equines' natural tendency toward cooperative and harmonious relationships. If humans constantly reinforce their dominance over the

equines, the equine might respond with fear, avoidance, or even aggression; humans also might ignore or miss subtleties of equine expression, making it necessary for equines to escalate behaviors to capture humans' attention. Conversely, approaches founded on cooperative relationships with attention to subtle communication more closely reflect relationships observed in feral equine society (Goodwin, 1999). Incorporating work and recreational activities in a way that compliments and draws on natural equine intelligence, characteristics and behaviors, including curiosity and play, can strengthen this relationship and improve the equine experience (Goodwin, 1999; Murphy & Arkins, 2007). The onus is on the human to consider the perspective of the equine and adjust accordingly. "Until the horse is ready to look to you...and follow your feel – you need to follow *his* feel. *By that I mean to be ready all the time to get with him, and all the time be aware of when things start to change in that horse's mental system. ...* There's all kinds of exceptions...there's no formula to it that's going to fit every horse or make sense to every person" (Dorrance & Desmond, 1999). These are the goals of natural horsemanship methods, which indeed seem to reduce equine stress and improve learning given certain conditions are met (see Rozempolska-Rucińska, Trojan, Kosik, Próchniak, & Górecka-Bruzda, 2013).

The moral, therefore, is not that equines are better off without humans. Many domesticated equines have adapted to human-created conditions, and many humans have adapted to provide their equines with the most natural environment and lifestyle possible, leading to healthy and content equines. The point is that it is important to be aware of the impact humans continue to have on equines, be considerate of the conditions we create for them and what we ask of them, and be sensitive to what we are communicating to

them and what they are communicating to us through their behaviors, attitudes, emotions, and health. There is a strong body of research on behaviors and learning patterns of feral equids and horses in commercial and high performance situations (e.g., breeding farms, race horses, high-level dressage horses), but far less research looking at equine wellbeing in their engagements with humans in EAAT contexts, though one might consider this a high-performance environment in its own way, given the unique environments and expectations placed on equines in these contexts.

Equine experiences with equine assisted activities and therapies. Though limited, the existing body of research examining equine experiences with therapeutic and learning activities suggests that, in general, equines do not experience significant stress in these environments, though there is some variation related to systematic differences in the type of activity or therapy, the human participants, and individual differences in the equines. For example, Suthers-McCabe and Albano (2004) measured therapy horses' plasma cortisol levels before and after a therapy class, and videotaped horse behaviors during the class. Four programs participated – two serving mental health patients and two serving physically and/or mentally handicapped. According to their results, based on a sample of 28 horses, plasma cortisol levels significantly decreased from pre- to posttest. Only six showed an increase. Unfortunately, further information was not available regarding potentially influential variables introduced by the riders (e.g., severity of handicap, age and size of riders, volunteer support), the duration and activities of the class, nor their observations of the equine behavior. Gehrke, Baldwin, and Schiltz (2011) similarly reported no significant difference in heart rate variability in Thoroughbred horses engaged in EAT.

Kaiser et al. (2006) and Wharton, Sercu, Malone, & Macauley (2005) suggest the type of activity or therapy might impact equine stress. Wharton et al. (2005) reported elevated post-session pulse rates in equines participating in Speech and Language Therapy classes, but did not see the same elevated rates in equines participating in EFP classes. Again, information regarding the class activities and riders is limited. Kaiser et al. (2006) found no significant differences in mean number of stress-related behaviors (i.e., ears pinned, head raised, head turned, head tossed, head shaken, head down, defecation) among groups of recreational, physically handicapped, psychologically handicapped, and special education children. However, stress-related behaviors were significantly greater when the horses were ridden by children in the at-risk group, suggesting a possible link between socioemotional and behavioral challenges and equine stress. Yorke et al. (2013) measured cortisol levels in four child riders with PTSD as well as cortisol levels in each rider's equine partner to see if a correlation existed between riders and their horses. There did seem to be a mild to moderate correlation between child horse pairs, though the small sample size generates need for future studies prior to drawing any conclusions. Finally, Pyle (2006) examined stress responses in five hippotherapy horses across three consecutive sessions (the maximum recommended by PATH Intl.), considering heart rate, blood samples (neutrophil, lymphocyte, monocyte, basophil, and eosinophil counts and cortisol), and behavioral observations. Pyle's results suggested that the individual horses responded differently to varying conditions, but there was a stress response in three of the five horses that would warrant consideration of their suitability for extended use, and potentially for hippotherapy. Again, it is difficult to draw

definitive conclusions from this small study, but the results indicate continued need to be mindful of equine wellbeing in therapeutic environments and conduct further research.

United States Veterans

A US Veteran is a "person who served in the active military, naval, or air service, and who was discharged or released therefrom under conditions other than dishonorable" (Moulta-Ali, 2015). This includes individuals who served in the Airforce, Army, Coast Guard, Marines, Navy, and National Guard. As of 2012, there were 21,341,026 Veterans in the United States and Puerto Rico, approximately 1.6 million of whom were female (VA, 2014b). The largest living cohort of male Veterans is comprised of those who served in the Vietnam era, and the median age of male Veterans was 64 years in 2012; the largest cohort of female Veterans are those who served in the Gulf War II, and the median age of female Veterans was 48 years in 2012 (VA, 2014b). Overall, the number of Veterans decreased between 2000 and 2012, though the proportions of female Veterans and minority Veterans have increased (VA, 2014b), as well as the number of Veterans with service-connected disabilities, which has grown by 60% since 1990 to approximately 3.5 million Veterans (VA, 2014c).

Military Culture and Experience

Military culture is a distinct subset of society with a separate set of laws, norms, traditions, and values (Exum & Coll, 2008; Exum, Coll, & Weiss, 2011). Individuals join the military for several reasons: it is family tradition to serve; to gain benefits (e.g. G.I. Bill, healthcare, upward mobility); to fulfill or gain a sense of identity; to escape, in which case the military "becomes the extended family that was not experienced growing up" (Hall, 2012, p. 6). Characteristics of the military culture include: an authoritarian

structure; a hierarchical class system; isolation and alienation; commitment to your military unit; the expectation to "soldier up"; honor, courage, loyalty, commitment, integrity; peacefulness, restraint, and obedience (Dahn, 2008; DeGeorge, 1987; Exum & Coll, 2008; Exum, Coll, & Weiss, 2011; Hall, 2012).

Approximately one-third (33.9%) of Veterans from the World War II era through the Gulf War served in combat or war zones (VA, 2010). Experiences reported by active duty service members include: receiving incoming fire (86%), knowing someone seriously wounded or killed [in combat] (79%), seeing dead bodies (63%), being attacked or ambushed (60%), being shot at (50%), and discharging their weapon (36%) (VA National Center for PTSD, 2015b). This presents a number of environmental, physiological, physical, cognitive, and emotional stressors (Coll, Weiss, & Yarvis, 2008; Hoge, Auchterlonie, & Milliken, 2006; Seal et al., 2007). Deployed service members experience the added stress of being in a foreign land, often in hostile circumstances, witnessing destruction of life and property, from which they cannot simply come home at the end of the day (Coll et al., 2008). Under such conditions, service members might experience side effects such as: secrecy, stoicism, and denial (Hall, 2012, based on Wertsch, 1991); constant preparation and vigilance (Hall, 2012); psychological injury (Shay, 2009); and moral injury (Shay, 2014). Three of the most prevalently cited injuries include traumatic brain injury (TBI), Posttraumatic Stress (PTS; also referred to as posttraumatic stress disorder and posttraumatic stress injury), and military sexual trauma (MST). Since 2000, there have been approximately 320,344 diagnosed cases of TBI, ranging from concussion/mild (264,344) to penetrating/open head injury (4,619). Approximately 25% of women and 10% of men seen at the VA reported experiencing

MST (VA, 2014a). PTSD diagnoses vary based on service era: approximately 11-20% of Veterans who served in OIF/OEF have PTSD; approximately 12% of Veterans who served in the Gulf War have PTSD; it is estimated about 30% of Vietnam Veterans had PTSD in their lifetime (VA National Center for PTSD, 2015a). These incidences occur in deployed combat soldiers, deployed peacekeeping soldiers, and nondeployed soldiers.

The combination of these factors can lead to a biopsychosocial stress reaction, leading to psychomotor deficiencies, withdrawal, anxiety, paranoia, and intrapersonal problems (Litz & Orsillo, 2003), increasing the likelihood of major depression, substance abuse, anxiety disorders, mood disorder, difficulty sleeping, and impairments in social, physical, and occupational functioning (Army Mental Health Advisory Team, 2008; Hoge et al, 2006). These issues can also cause relationship problems. For example, deployments longer than 15 months have been associated with higher rates of divorce, with 20% of married active duty service members, almost 30% for younger soldiers and marriages, planning divorce by the 14th or 15th month of deployment (Army Mental Health Advisory Team, 2008). Interpersonal violence in active duty and Veteran populations is almost three times greater than in civilian populations (Houppert, 2005). Often times, active duty and Veteran service members do not seek assistance with struggles due to perceived stigma and concern over keeping their position (Ashley & Constantine Brown, 2015; Hoge et al., 2004; VA, 2011).

Transitioning out of the military presents its own set of challenges for individuals, oftentimes regardless of whether they engaged in combat experiences. Factors that can influence the transition back into civilian life in addition to injury and stress-related outcomes include: length of service or deployment, number of deployments, age of

service member, level of combat exposure, strength of relationships pre-deployment, and level/frequency of communication while serving (Beder, 2012; Beder, Coe, & Sommer, 2011). Additionally, individuals who served in Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND) often face additional challenges due to multiple deployments, longer tours, and greater numbers of injuries from IED, TBI, and PTS (Coll et al., 2008). Many Veterans report a sense of "culture shock" and loss of identity (Hall, 2012), and have trouble with family and social relationships, feeling isolated or distanced from the civilian world (Beder, 2012; Coll et al., 2008). Higher rates of relationship problems have also been associated with physical and mental health injuries (Coll et al., 2008), which are also a cause for societal concern. Active duty and Veteran service members are at a significantly higher risk of suicide compared with the general US population (Kang et al., 2015), with relative increases in suicide rates of males under age 30 and females since 2009 (Kemp, 2014), and the greatest rate of suicide occurring within 3 years after leaving service (Kang et al., 2015). A greater number of Veterans who attempt or commit suicide have a diagnosed mental health condition compared to those with no diagnosed condition (Kemp, 2014); 15-30% of returning Veterans meet the criteria of a mental health disorder, particularly PTSD, mood disturbances, anxieties, and co-morbid substance abuse (US Army Medical Department, 2008). In addition to higher rates of relationship struggles and interpersonal violence, this can contribute to higher rates of unemployment and homelessness. Because many Veterans do not seek support, their struggles often do not receive attention until (or unless) the Veteran experiences severe disruption in their life (Coll et al., 2008). Unfortunately, many of the challenges they face also influence whether or not service

members or family members seek help (Hall, 2012). For example, an individual with signs of depression might not seek help because of the symptoms of depression.

Services and Programs

Some services are in place within the military, such as the Comprehensive Soldier Fitness (CSF) Program offered in the Army, focusing on resiliency skills for military personnel and families prior to deployment, the Families Overcoming and Coping Under Stress (FOCUS) program, similar to the CSF Program but for Navy and Marine Corps soldiers and families, and Combat Stress Control (CSC) Teams, teams made up of specialists such as social workers, psychiatric nurse officers, psychiatrists, and occupational therapist officers, tasked with the goal of providing prevention and treatment as close to the soldier's unit as possible, in order to keep the soldier with the unit. CSC teams offer consultation, preventative resiliency skills training, brief individual therapy, anger management skills, stress management skills, substance abuse counseling, and PTSD symptom-related group therapy. They can place distressed service members on restoration hold for up to three days, but the goal is to return the individual to duty (Litz & Orsillo, 2003).

There are similarly a number of programs available to aid in the transition from active duty to Veteran service member. Many of these are more traditional in nature, such as healthcare, counseling, and guidance services available through the VA and other military-connected organizations. However, there is a large percentage of Veterans who are not making use of services, especially those geared toward mental and emotional health wellness. Veterans expressed concern that others might view them as weak or cowardly, have less confidence in them, and treat them differently if they were to seek

professional help (Bruner & Woll, 2012; Hoge et al., 2004; VA, 2011). Veterans have also expressed concern that seeking the help of a mental health professional would be harmful to their careers, that they did not trust mental health professionals, that they had trouble scheduling an appointment and/or getting time off for treatment, that it would be embarrassing, that they did not know where to get help, and that it was costly and/or didn't work (Hoge et al., 2004; Hoge et al., 2006; VA, 2011). Finally, Peterson, Borah, & Young-McCaughan (2011) identify lack of sufficient education and training to employ evidence-based practices with this population on the part of mental health professionals, lack of training opportunities, lack of supervision, and lack of research-based support for specific treatment practices as barriers to providing sufficient effective treatment.

A number of Veterans are expressing a desire to get away from what they see as traditional treatments strategies dependent on medication and office visits. In order to provide better services addressing these desires, and perhaps shift perceptions help-seeking behaviors, there is increasing emphasis on providing a holistic approach to Veteran wellness and reintegration, not only addressing physical or mental health, or helping with work and school on an as-needed basis, but encouraging integration of all these elements. This combination of factors is giving rise to many experiential learning and psychotherapy programs, with goals of helping Veterans connect socially and improve physical and mental health and wellness through a holistic approach. The Wounded Warrior Project (WWP), for example, promotes engagement in inclusive and adaptive sports such as cycling, fishing and hunting, flying, horseback riding/equestrian activities, scuba diving, skiing and snowboarding, and water sports, just to name a few of expansive offerings, most also available with wheelchair modifications. Their Soldier

Ride program advertises "a unique four-day cycling opportunity for wounded service members and veterans to use cycling and the bonds of service to overcome physical, mental, or emotional wounds" (WWP, 2015). Among emerging learning and therapy programs for Veterans are AAI, including programs with canines, equines, and even fly fishing (angler-assisted therapy).

Veterans and Equine Assisted Activities and Therapies

Though independent organizations and popular media have been actively promoting the efficacy of AAI with Veterans, research is lacking. In terms of Veterans and EAAT, specifically, most current research is in the form of two publications, a dissertation and three master's theses. Asselin, Penning, Ramanujan, Neri, & Ward, (2012) published a case study of therapeutic horseback riding with a Veteran who had suffered an incomplete spinal cord injury, reporting increased balance, muscle strength and self-esteem, in addition to increased confidence with the horse and improved riding skills, and increased motivation to participate in stretching and strengthening exercises offsite in order to prepare for riding.

Lanning and Krenek (2013) published results of a mixed-method study exploring the impacts of therapeutic riding on health behaviors and depression symptoms of 13 Veterans. They found that baseline health behavior scores, based on the 36-Item Short Form Health Survey version 2, were below the U.S. norm-based population, with the lowest score on the emotional problem subscale. Depression symptoms, based on the Beck Depression Inventory, 2nd edition, ranged from relatively little depression to severe depression. Following the therapeutic riding, participants reported increased health behaviors and fewer depression symptoms, though statistical analysis data were not

provided. The most prominent qualitative theme to emerge was increased sociability as a result of the program, as well as reduced isolation and increased trust in others. Staff and volunteers were referred to more frequently than the horses in Veterans' responses. Horses were described as nonjudgmental, intuitive, good listeners, and compassionate. Finally, participating Veterans felt stronger, more confident, and more accepting of others. Looking to the future, most wanted to be a better person, volunteer, have a career or go back to school, and be able to release stress and anxiety of past experiences.

In her dissertation, Abrams (2013) explored therapists' conceptions of EFP/EAP for combat Veterans experiencing posttraumatic stress disorder. Interviews and follow-up contact with five licensed/credentialed mental health professionals yielded seven major themes as to why therapists chose EFP/EAP with Veterans, how EFP/EAP was effective for Veterans, and how common (client, therapist, collaborative relationship) and specific factors were involved in the EFP/EAP therapeutic process. Abrams reported seven major themes based on therapists' responses: the horse-human relationship, building trust, engaging people mentally and physically, nonverbal communication, emotional safety, a faster vehicle, and from the beginning. This last theme was reflective of the fact that the therapists, themselves, had previous equine experiences of their own, coming to perceive the value of developing a trusting relationship with a being unlike humans, learning to care for another, learning responsibility and problem-solving skills, learning to communicate effectively through nonverbal communication, and feeling motivated, accomplished, and increased self-confidence. The therapists also spoke of horses as nonjudgmental.

Based on existing AAI and EAAT research, and emerging understandings of Veterans and the potential efficacy of AAI with Veteran populations, this field warrants further investigation.

Theoretical Framework: Humanistic Education, Experiential Learning, and Transformative Learning

The theoretical framework refers to the underlying scaffolding of a study – the overarching theories and concepts that inform the research process, as well as assumptions, expectations, and belief systems (Maxwell, 2005; Merriam, 2009). In addition to human-animal interactions, the natural horsemanship movement, and information about military culture, the frameworks central to my involvement in and interpretation of this research include humanistic education, experiential learning, and transformational or transformative learning. These theories influenced my decision to pursue this research track and my approach to the research, interactions and decisions in the field, and my analysis and interpretations of the data.

Humanistic Education

The humanistic worldview has been defined as:

regarding human beings as sovereign individuals who are responsible for their destiny, attributing to all people an unconditional self-value equal to that of their fellow men and women, and striving to establish a just, democratic, and humane social order, which is committed to the sanctity of human life and the furthering of human equality, freedom, solidarity, growth and happiness (Aloni, 2002, p. 63)

What Aloni (1997) has described as the romantic or naturalistic form of humanistic education (p. 91) flourished in the 1960s and 70s through humanistic psychology and education movements. Humanistic education has roots in the humanities and mental health education movements, influenced by humanistic psychologists such as Maslow, Rogers, and Cohen, who were dissatisfied with the reductionist approach to psychology

and called for a need to consider the whole person (Giorgi, 2005; Underhill, 1989). Shared ideals of humanistic psychology put forth by Maslow, Rogers, and others included focus on: (a) high-level health and well-being; (b) the whole person; (c) human motivation toward self-realization; (d) change and development; (e) education as a life-long process; (f) respect for an individual's subjective experience; and (g) self-empowerment (Underhill, 1989).

Translating these ideas to the educational environments, major emphases are on learning as a continuous process and not a product (Bruner, 1966; Shannon, 1971; Underhill, 1989), and facilitating development of the individual as a whole so they may become balanced, self-actualized, and able to live a meaningful life as an individuals and members of a community (Aloni, 2002; Valett, 1977). Specifically, humanistic-oriented environments: encourage autonomy and critical thinking; recognize the importance of feelings and emotions; value love, creativity, and the importance of self-knowledge; foster self-directed learning; and view the educator as a facilitator or guide supporting individual learners' personal growth (Aloni, 2002; Strain, 1971; Valett, 1977).

Education, then, is a process of developing human faculties and abilities. Humanistic education insists that this process be concerned with developing the whole person, which includes affective-emotional skills and abilities as well as cognitive and physical or psychomotor ones. And the final goal of humanistic education is to produce a good and relatively happy person who is capable of living a creative and meaningful life. (Valett, 1977, p. 6)

To expand on the end of Valet: the humanistically-educated individual is capable of living a creative and meaningful life in which the person has the self-knowledge, abilities, and sense of purpose that allow them to adapt to an ever-changing world, all the while maintaining consideration and compassion for self and others.

Experiential Learning

In alignment with the humanistic education movement, experiential learning emphasized the development of the whole learner through a process of direct experience and reflection. Kolb's (1984) model of experiential learning grew from his observations of adult learners engaged in learning through work, internships, and similar experiences outside of the classroom. As he began to reflect on some of the disconnect between learning in and out of the classroom, he determined:

[the] concept of learning is considerably broader than that commonly associated with the school classroom. It occurs in all human settings, from schools to the workplace, from the research laboratory to the management board room, in personal relationships and the aisles of the local grocery. It encompasses all life stages, from childhood to adolescence to middle and old age. (Kolb, 1984, p. 32)

Kolb's ideas were founded on Lewinian, Deweyan, and Piagetian models of learning, emphasizing cycles of concrete experience, observation, reflection, construction of knowledge, and consequent action. Like proponents of humanistic education, Kolb (1984) agreed recognized learning as a continuous, lifelong process, in which prior experience shapes current experience, and impacts subsequent experience, or, as Dewey more eloquently stated:

the principle of continuity of experience means that every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after. ... As an individual passes from one situation to another, his world, his environment, expands or contracts. He does not find himself living in another world but in a different part or aspect of one and the same world. What he has learned in the way of knowledge and skill in one situation becomes an instrument of understanding and dealing effectively with the situations which follow. The process goes on as long as life and learning continue. (Dewey, 1938, p. 35, 44)

Also aligned with humanistic education, Kolb (1984) believed it required active, self-directed participation by the learner, and felt the role of the educator was not direct instruction, but guidance, tasked with not only exposing the learner to new ideas, but

helping the learner identify existing beliefs and ideas, test them, critically examine them, and then integrate these new ideas and experiences. This process implies learning results from a process of conflict and resolution, and results in a transformation of experience and the learner (p. 38).

Drawing on Erikson and Jung, and returning to adult learning, Kolb (1984) identified possible conflict in needing to adapt the specialized self a person had created up to that point. Specialization toward a particular career, for example, might have required sacrifice of other forms of fulfillment, such as family. This can result in stagnation, loss of creativity. "Finding new directions for generativity is essential" (p. 212), though this conflict is also necessary if change is to happen, "wholeness cannot be fully appreciated save in contrast to the experience of fragmentation, compartmentalization, and specialization" (p. 212). Again, this sentiment harkens to the humanistic notion of achieving wholeness and self-actualization. Kolb termed this idea *integrity* (p. 224), achieving integration of complex, opposing understandings and identities to develop a transcendent whole.

Transformative Learning

Introduced by Mezirow (1981, 1991, 1995, 1997) as transformational learning, this perspective is another that embraces the concept of a learner actively participating in a constantly shifting environment, and in doing so, coming to construct or revise new interpretations and understandings that guide future actions. Transformative learning theory was developed as uniquely adult, requiring (a) life experience, (b) critical reflection, and (c) discourse in order to achieve a shifted, or transformed, frame of reference. This shift was often necessitated by conflict, such as an acute personal or

social crisis, though could also result from an accumulation of adapted meaning schemes or perspective over time.

Mezirow's dominant psychocritical perspective, characterized by critical reflection and rational dialogue with others, was criticized for overlooking factors such as spirituality, positionality, and even neurobiological factors, leading others to develop alternate theories of transformative learning, including the psychoanalytic perspective, the psychodevelopmental perspective, the neurobiological perspective, the cultural-spiritual view, the social-emancipatory perspective, the race-centric perspective, and the planetary view (Taylor, 2008). The psychoanalytic (Boyd and Meyers, 1988; Cranton, 2000; Dirx, 2000), psychodevelopmental (Daloz, 1986; Kegan, 1994), and neurobiological (Janik, 2005) perspectives also focus on transformation at the individual level, considering psychological structures, concepts and processes. The psychoanalytical perspective emphasizes a goal of self understanding and awareness through reflection on psychic structures (e.g., ego) that make up an individual's identity and involves discovery of new talents, developing a sense of empowerment and confidence, and achieving deeper understanding of one's inner self and greater sense of self-responsibility (Taylor, 2008). The psychodevelopmental perspective broadens beyond adult learning to consider incremental growth over the lifespan, recognizing the role of relationships, personal contextual influences, and resulting in epistemological change and holistic ways of knowing (as opposed to mere accumulations of knowledge and changes in behavior). In his neurobiological perspective, or the "brain-based" theory (Taylor, 2008), Janik (2005) examined neurobiological structures and functions and how they changed during the learning process. Based on his research, Janik reiterated that discomfort is a prerequisite

for learning, the learning experience must be "volitional, curiosity-based, discovery-driven, and mentor-assisted" (Janik, 2005, p. 144), and that kinesthetic, sensory, and emotional experiences can strengthen the learning experience. Finally, Janik suggested differences in learning between males and females.

In contrast to these theories centered around individuals and their psychological processes, a number of individuals suggested transformative learning theories that focused more on transformation at the social level, and recognized the influence culture and one's position within culture. Brooks (2000) and Tisdell (2003) developed a cultural-spiritual view of transformative learning, in which the position of individuals within social structures is explored, with encouragement of cross-cultural relationships and spiritual awareness, toward the goal of transforming the social narrative. The social-emancipatory perspective, rooted in the work of Freire (1984) and Freire and Madedo (1995), encouraging individuals to constantly reflect on their roles as active subjects (not objects) and take actions to transformation the world toward a more equitable place. The race-centric perspective (Williams, 2003; Sheared, 1994) particularly emphasizes the experiences of people of African descent, especially black women, encouraging inclusion and empowerment of those historically silenced and striving for belongingness and equity as a community and culture (rather than at an individual). Similar to the social-emancipatory perspective, action is an important aspect of shaping society.

Finally, the planetary perspective of transformative learning is the broadest conceptualization, recognizing interconnectedness among the universe, the planet, the natural environment, and the human community and individual levels. Reflection is embedded in how we interact with each of these dimensions, and the goal is (or should

be) to reorganize current political, social, and educational systems in order to integrate an appreciation of the natural world and recognize our interconnectedness.

Despite these differences, each theory of transformative learning has contributed important considerations to the others, and integrate into this same idea of transforming ways of being through transforming perspectives. On reviewing literature incorporating transformative learning approaches and objectives, Taylor (2007) highlighted important considerations for facilitating transformative learning. First, identification of conflict or problematic ideas is necessary for a starting ground – something to transform (Mezirow, 1995; Mezirow & Associates, 2000). From here, critical reflection and engagement in discourse rooted in life experience support the developmental process, suggesting that educators should facilitate opportunities to draw on life experience and engage in critical reflection and discourse. Further, these processes take continuous practice, and the facilitator might need to begin with premise (why?) questions, rather than content (what?) and process (how) questions to encourage this level of reflection (Taylor, 2007, 2008).

Relationships with others are an important component of transformative learning, including relationships both in and out of the learning experiences, for it is through these relationships that dialogue takes place, leading to critical reflection. For example, Carter (2002) discusses the roles of relationships in terms of relationships to the self – such as love from self, friends and family, memory of former or deceased individuals, and imaginative relationships through inner-dialogue and meditation. Eisen (2001) describes the importance of relationships to the learning process in terms of peers engaged in the same process or environments. In order to facilitate the learning, these relationships should be nonhierarchical, nonevaluative, authentic, and should revolve around common

goals with voluntary participation (Eisen, 2001). Dialogue should not be argumentative so much as founded on trust, and is often "highly personal and self-disclosing" (Carter, 2002, p. 82). The educator can also participate in this sense, creating a safe and considerate environment for exploration, and modeling engagement in the dialogic and transformative learning process. A benefit of this is helping peers realize "they [are] not alone on this transformational journey" (Baumgartner, 2002, pp. 56-57). However, peers might also need to challenge each other in order for transformative learning to take place, as suggested by Ziegler, Paulus, and Woodside (2006), who reported lack of transformative learning when group members in an online learning environment did not ask critical questions of each other or challenge assumptions.

A holistic approach to learning is also important for transformation to take place, recognizing not only life experience, but the roles of feelings and emotion, relationships with others, socio-cultural factors, and different ways of knowing (e.g., intuition, somatic) (Taylor, 2007, 2009). Dirkx, Mezirow, and Cranton (2006) encourage opportunities within the learning environment to explore and establish dialogue with aspects of self "seeking expression" (p. 22).

Based on these views of learning and education, experiences with equines have the potential to foster transformative learning, as a rich, experience-based environment that requires acknowledgment of all aspects of self in order to establish a relationship with one's equine partner – a relationship ideally established on a mutual sense of trust, safety, and communication.

CHAPTER IV

METHODOLOGY

No scientific discovery is ever complete. No experience is ever finished or exhausted. New and fresh meanings are forever in the world and in us. . . . The whole process of being within something, being within ourselves, being within others, and correlating these outer and inner experiences and meanings is infinite, endless, eternal. This is the beauty of knowledge and discovery. It keeps us forever awake, alive, and connected with what is and with what matters in life. (Moustakas, 1994, p. 65)

The purpose of this study is to explore the equine experience in the context of a developing EFL/EFP program for Veterans: specifically, my own experience, as well as those of the Veterans and Equines. With specific regard to the scope of this particular inquiry, the primary question is:

What is the experience of an EFL/P program for Veterans?

Secondary research questions include:

- a. What are the unique experiences of Veteran participants with the program, in general, and with their equine partners, specifically?
- b. What (if any) are the shared experiences of and meanings made by participating Veterans?
- c. How do the equines interact with the Veterans and what is the meaning of the equines' non-verbal communication?

How does one explore experience and meaning-making? What methods and techniques help guide the search for understanding? In this section, I describe the specific methods I chose to investigate the human-equine experience in this study, guided by Moustakas's (1990) heuristic methodology.

Heuristic Methodology

A paradox arises: the only way to meaning in freedom is through boundaries. The only way that boundaries make any sense at all is through freedom. (Moustakas, 1995, p. 93)

As noted, I approach this research as inquirer/participant, as it is my personal experiences with equines that drive my research. I know my experiences in the sense that I can offer a compilation of moments and interactions directly with or related to equines, and I can interpret associated feelings and meanings locally. Through equines, I began to notice moments of resonance—sometimes harmonious, sometimes discordant—with others (human and equine, alike), which furthered my understanding and meaning-making of my personal experiences in addition to shaping a notion of "the equine experience." And thus began an urge to further explore and understand others' experiences, and to offer the opportunity to share in the experience. I want to approach understanding "The" equine experience. In pursuit of this in the current context, I have chosen to follow primarily Moustakas's heuristic methodology (1990), also draw from ideas related to what falls within the realm of anthrozoology, human-animal interaction research, natureculture, "multispecies ethnography" (Kirksey & Helmreich, 2010), and similar approaches to research investigating human relationships with other living beings.

This quest for *verstehen*, or understanding, founded on personal experience aligns with heuristic methodology. Heuristic methodology offers guidance in seeking understanding of the essences and meanings of human experience through systematic explorations of self and others (Kleining & Witt, 2001; Douglass & Moustakas, 1985; Moustakas, 1990, 1994). Originating from the Greek *heuriskein* or *euriskō*, meaning to discover or find, the root of heuristic inquiry is the notion that knowledge grows from

direct human experience, and can be discovered and illuminated through exploratory inquiry of self and others. Kleining and Witt (2001) credit Joachim Jungius with the re-establishment of the concept of heuristic inquiry in the 17th century. Also influential in the development of heuristic research are Maslow's (1956, 1966, 1971) explorations of growth and self-actualization, Polanyi's notions of indwelling and personal knowledge (1958) and explication of tacit knowledge (1969), Buber's (1923/1958) philosophy of dialogue and explorations of *Ich-Du* [I-thou] and *Ich-Es* [I-it], Bridgman's (1950) delineations of subjective-objective truth, Gendlin's (1962/1997) analysis of meaning of experience, and Rogers's (1951) theory of the self. Douglass and Moustakas (1985), Moustakas (1961, 1990), Kleining and Witt (2000, 2001), Etherington (2004) and others have continued to develop the methodology across a number of disciplines.

Common Components of Heuristic Research

Heuristic research is a disciplined and systematic process toward understanding human experience and meaning-making, “applicable to all topics within psychology and the human and social sciences which are open to empirical research (Kleining & Witt, 2000, ¶3). Recognizing heuristic research as a particular scientific approach, Kleining and Witt (2000, 2001) and Moustakas (1990) have offered frameworks to guide and systematize the process of heuristic research. For the purposes of this research, I drew primarily from Moustakas's (1990) approach to heuristic methodology, outlined below. However, there are core components and characteristics of heuristic methodology common among both approaches.

First, heuristic research aligns with qualitative approaches to research. In fact, Kleining and Witt (2000) refer to it as “the qualitative heuristic approach,” or simply

“qualitative heuristics.” The goal, after all, is not to confirm or reject predefined hypotheses through quantification of data, or production of statistically significant results generalizable to multiple populations. Rather, heuristic researchers seek to approach understanding and meaning through exploration and description, and this journey is just as important as the destination, if not more so. What particularly distinguishes heuristic research from qualitative approaches in which the researcher maintains a level of detachment, such as phenomenological or grounded theory research, is the constant integration of the researcher's self and experiences throughout the process. Researchers engaging in heuristic inquiry must have and maintain direct, personal experience with the phenomenon in question, leading to a subjective and intimate relationship between researcher and phenomenon. In this way, the researcher becomes participant in exploring the meaning of the phenomenon. Moustakas (1990) sums, “the self of the researcher is present throughout the process and, while understanding the phenomenon with increasing depth, the researcher also experiences growing self-awareness and self-knowledge. Heuristic processes incorporate creative self-processes and self-discoveries” (p. 9).

Beyond the researcher's personal experience with the phenomenon of interest, core components of heuristic research common among different researchers' particular approaches include: (a) exploration of the essence and meaning of the phenomenon through internal and external pathways; (b) openness of the researcher to new concepts and change, and willingness to adjust as needed; (c) openness of the research topic to allow for change in direction during the research process; (d) representation of multiple points of view; (e) integration of all data into a whole portrayal of the essence of the phenomenon while preserving individual voices; and (f) transformative potential

(Douglass & Moustakas, 1985; Moustakas, 1990; Kleining & Witt, 2000, 2001).

Moustakas (1961, 1990, 1994) particularly encourages description through creative processes, such as narrative, story, poem, work of art, metaphor, or analogy of personal, professional, and literary value. The researcher attempts to straddle autoethnography, phenomenology, and, in this case, multispecies ethnography, leading to "new images and meanings regarding human phenomena, but also...realizations relevant to their own experiences and lives" (Moustakas, 1990, p. 9).

Moustakas's Heuristic Processes and Design

Heuristic inquiry is

a way of engaging in scientific search through methods and processes aimed at discovery; a way of self-inquiry and dialogue with others aimed at finding the underlying meanings of important human experiences...this requires a passionate, disciplined commitment to remain with a question intensely and continuously until it is illuminated or answered. (Moustakas, 1990, p. 15)

In order to guide researchers through this process, Moustakas identified seven central concepts or processes (Figure 18, Table 1), which permeate each of six phases (Figure 19, Table 2) that comprise the basic heuristic research design and serve to guide the researcher's ensuing explorations. Though these phases are often presented as a linear process, once initiated, they do not necessarily proceed linearly. Researchers may visit and revisit certain aspects and phases throughout the research process. Moustakas additionally offers suggestions for formulating the question, collecting data, analyzing and synthesizing data, and preparing (re)presentations.

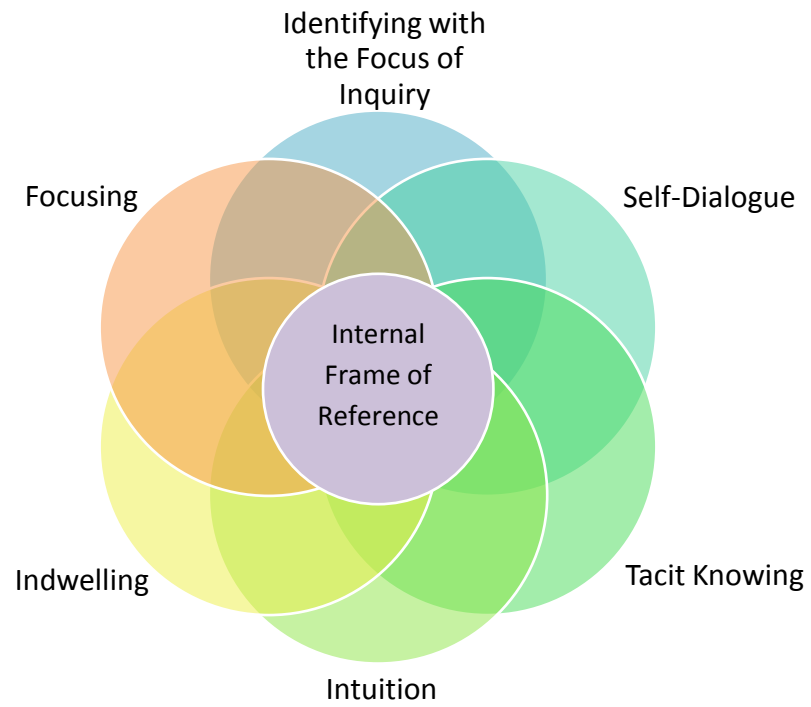


Figure 18. Moustakas's (1990) seven core components of heuristic research

Table 1

Defining Moustakas's (1990) Seven Core Components of Heuristic Research

Component	Description
Identify with the focus of inquiry	“The inverted perspective” (Salk, 1983, in Moustakas, p. 16). Immerse oneself in the question; achieve connection with and deeper understanding of the question through open-ended investigation, engagement in active experience, self-directed learning and internal dialogue.
Self dialogue	“Self-dialogue is the critical beginning. . . . The process of self-dialogue makes possible the derivation of a body of scientific knowledge” (Moustakas, p. 16-17). Enter into a dialogue with the phenomenon of interest, reflecting on personal experience with the phenomenon through reflection, journaling. Requires honesty and self-disclosure, which facilitates connection with and disclosure from others.
Tacit knowing	“All knowledge is <i>either tacit or rooted in tacit knowledge</i> ” (Polanyi, 1969, p. 144). Tacit knowing refers to the private, personal, and subjective internally possessed achievable knowledge that we cannot necessarily describe or explain. Within the context of heuristic research, tacit knowing drives the inquirer as they seek to illuminate tacit knowledge.
Intuition	“The bridge between the explicit and the tacit . . . Intuition makes possible the perceiving of things as wholes.” (Moustakas, p. 23). Recognize immediate knowledge, drawing on sensation and perception, piecing together observation and experience. Intuition guides discovery of patterns and meaning, leading to deeper understanding.
Indwelling	“Turning inward to seek a deeper, more extended comprehension of the nature or meaning of . . . human experience” (Moustakas, p. 24). Consciously return to one's self to dwell within the experience. Following intuition rather than a linear progression, the inquirer pieces together tacit and explicit dimensions to deepen understanding of the essential qualities and meaning of the whole experience, moving toward synthesis.
Focusing	"Focusing is an inner attention, a staying with, a sustained process of systematically contacting the more central meanings of an experience" (Moustakas, p. 24). Clear the space—physically, mentally, and emotionally—necessary to focus on the experience. The goal is to achieve a relaxed, more receptive state, allowing for identification and clarification of those elements previously beyond consciousness.
Internal frame of reference	"Our most significant awarenesses are developed from our own internal searches and from our attunement and empathic understanding of others" (Moustakas, p. 26). Every element of the heuristic process relates back to the internal frame of reference, because in order to understand the meanings and essences of experiences, the inquirer must rely on their own internal frame of reference and that of each participant sharing their experiences.



Figure 19. Moustakas's (1990) six phases of heuristic research. This figure illustrates the six phases of Moustakas's heuristic research process, their relation to Moustakas's core components of heuristic research, and their interrelationship with the other phases.

Table 2

Describing Moustakas's (1990) Six Phases of Heuristic Research

Phase	Description
Initial Engagement	<i>Identify personal experience and clarify the question.</i> "I begin the heuristic journey with something that has called to me from within my life experience, something to which I have associations and fleeting awarenesses but whose nature is largely unknown" (Moustakas, 1990, p. 13). The inquirer identifies a passion, problem, question or interest that holds important social and personal implications. This requires identification with the focus of inquiry while maintaining the internal frame of reference, as well as drawing on the processes of self-dialogue, indwelling, and inner focusing to bring the unconscious and intuitive to the conscious in the interest of further exploring the question. Ultimately, this phase results in the formation of the question.
Immersion	<i>Live the question.</i> "The researcher lives the question in waking, sleeping, and even dream states. Everything in his or her life becomes crystallized around the question" (Moustakas, 1990, p. 28). Once the inquirer has identified and clarified the question, they immerse themselves in the topic, coming to a greater understanding of the topic by living it and growing in it. Immersion involves continued identification with the focus of inquiry through self-dialogue and consideration of the internal frame of reference. During this phase (and throughout the others), the inquirer must strive to maintain awareness of both intuitive and actual aspects of the experience and remain alert to all possibilities for meaning as they enter venues wherever the phenomenon is being expressed, be it various media, literature, public gatherings, field experience, nature, or lives of other individuals experiencing the phenomenon.
Incubation	<i>Retreat and process.</i> "Incubation is a process in which a seed is planted; the seed undergoes silent nourishment, support, and care that produces a creative awareness of some dimension of a phenomenon or a creative integration of its parts or qualities" (Moustakas, 1990, p. 29). At some point(s) in the research, the inquirer consciously retreats from the intense immersion to allow for processing of the information. Allow time and space for reflectivity by intentionally standing away from the phenomenon of interest. This allows intuitive and tacit understandings of the phenomenon on levels beyond immediate awareness to develop and clarify, allowing meanings and essences of the phenomenon to become available. Moustakas likens this to trying to find a misplaced key or recall a forgotten name. As long as a person is absorbed with remembering, the key remains hidden and the name remains beyond reach. As the person redirects their attention toward something else, some other train of thought, the key's location or the name comes to consciousness. The inquirer may engage in periods of incubation throughout the research.

Table 2, continued

Phase	Description
Illumination	<p><i>Become aware of tacit understanding, develop new insights.</i> “The illumination... is a breakthrough into conscious awareness of qualities and a clustering of qualities into themes inherent in the question” (Moustakas, 1990, p. 29). As tacit understandings and intuition reach consciousness, new aspects of the experiences are illuminated, further contributing to the inquirer’s understanding. This requires the inquirer to remain open and receptive to the possibility of these new aspects, new dimensions of knowledge, hidden meanings, or even the need to modify or correct distorted understandings. As these “missed, misunderstood, or distorted realities” (Moustakas, p. 30) are illuminated in the inquirer’s conscious, the inquirer takes another step in approaching understanding of the essence of the experience. Closely linked to the process of incubation, tacit knowing and intuition are key, as well as self-dialogue, indwelling, focusing, and the internal frame of reference. Also as with incubation, I believe the inquirer may experience moments of illumination throughout the research.</p>
Explication	<p><i>Explicate tacit knowledge.</i> “The purpose of the explication phase is to fully examine what has awakened in consciousness, in order to understand its various layers of meaning” (Moustakas, 1990, p. 31). The inquirer engages in deep examination of themes and core components of the experience that began to emerge through the illumination phase in order to understand the various layers of meaning. Moustakas suggests that the most important concepts in this phase include indwelling and focusing, as well as self-searching and awareness of one’s own feelings, thoughts, beliefs, and biases as the inquirer revisits data, develops core themes, frames discoveries within existing literature and contexts, and organizes discoveries of meaning into a detailed, comprehensive representation of the true essence of the experience.</p>
Creative Synthesis	<p><i>Synthesis and (re)presentation of the experience(s).</i> “The researcher must move beyond any confined or constricted attention to the data and permit an inward life on the question to grow, in such a way that a comprehensive expression of the essences of the phenomenon investigated is realized” (Moustakas, 1990, p. 32). The inquirer moves beyond the raw data and moves to synthesize individual stories and the co-created meanings into a creative (re)presentation of the essence of the experience. According to Moustakas, this is largely achieved through tacit knowing, intuition, and self-dialogue, though I argue continued identification with the focus of inquiry, indwelling, focusing, and constant awareness of internal frames of reference are also key. After all, this creative synthesis is a culmination of the experience, representing understandings and meanings that developed collectively throughout the process. This synthesis is often presented as a manuscript, but might also be captured in poem, story, visual art, or other creative form.</p>

Moustakas (1990) offers suggestions for formulating the research question, preparing for and collecting data, organizing and synthesizing data, and preparing a final

(re)presentation. First, Moustakas describes a heuristic research question as one that seeks to discover more fully the essence or meaning of a phenomenon of human experience, qualitative rather than quantitative in nature, and with the aim of exploring rather than explaining or predicting. With this, the question should draw on qualitative approaches, such as dialogue, metaphor, and "creative renderings" (p. 42), rather than quantitative instruments. Additionally, the question must incite passion in the researcher, leading the researcher to engage fully in the question and the process of the research.

In order to prepare to explore the research question, Moustakas suggests first immersing oneself in the topic, through self-dialogue, observation, conversation, reading published works and engaging in related experiences. As the researcher progresses, Moustakas offers additional preparatory steps, such as (a) developing a set of instructions detailing the research design, purpose and process, and expectations of any co-researchers who might become involved in the research, (b) developing a set of criteria for selecting research participants, (c) developing a contract for potential participants, including such information as what will be required of participants, opportunities for feedback, and permission to use materials, (d) considering ways to create an atmosphere that will encourage comfort, trust, openness and self-disclosure, and (e) developing protocol for checking in with co-researchers and participants regarding the process and perceptions of the research.

Data sources and collection procedures should illuminate the nature, meaning and essence of the phenomenon of interest, all the while relating back to the research question. Moustakas identifies interviews as traditional means of collecting data in heuristic research, recommending informal dialogue with self and others. Though a single

participant may suffice, Moustakas encourages including a greater number of participants – "perhaps as many as 10 to 15" (p. 47) – in order to gain more varied depictions of the experience, and therefore a deeper, richer exploration of the phenomenon. In the process of this cooperative dialogue, freedom of expression should be encouraged, and the researcher may engage in self-disclosure in order to encourage participants to similarly disclose. It is recommended that interviews are recorded and later transcribed, and that the researcher write notes immediately following the interview. Additional sources such as diaries, journals, poetry, and artwork may serve to supplement interviews and observations, offering additional perspective and depth.

In terms of organizing, synthesizing, and analyzing data, the researcher enters a cyclical process of immersion, incubation, illumination, and explication. Moustakas encourages the researcher to organize transcriptions, notes, and other documents in a way that maintains individual participants' stories, but also allows for consideration of the collective. In order to then immerse oneself in the data, the researcher listens to recordings, revisits notes and documents, documents new observations and ideas, and remains open to patterns and themes that begin to take shape. Eventually, the research produces portraits of participants' individual experiences to share with participants and garner additional feedback. Following individual depictions, the researcher considers the composite experience, identifying or developing a few exemplary portraits highlighting shared commonalities. The final step in synthesis, moving toward (re)presentation and dissemination, is the creative synthesis of a composite depiction of the experience through story, poem, song, or other means that allow for the researcher's intuition, imagination, and personal understanding to emerge.

Finally, the researcher is ready to prepare a manuscript to share with a larger audience, which should follow (by Moustakas's standards) the traditional outline including an introduction and statement of topic and question, a review of literature, methodology, presentation of data (including individual depictions, collective depiction, exemplary individual portraits, and creative synthesis), and a summary with discussion of implications. While offering these guidelines, Moustakas (1990) also cites Bridgman (1950) and Keen (1975) in suggesting that the researcher should not feel bound to a particular course of action. Rather, the researcher should remain flexible and prepared in any particular situation to utilize methods that help in exploring the phenomenon and explicating meaning beyond what may be available through everyday "ordinary experience" (Keen, 1975). With this, Moustakas (1995) also emphasizes the necessity of meditative thinking if one is to be open to the present and being – if one is to be successful in the phenomenological quest to return to "the things themselves."

Verification and Validation² of Heuristic Research

Though presented as seventh phase of heuristic research by Hiles (2001), the issue of validation is really addressed throughout the process of heuristic research (Kleining & Witt, 2000, 2001; Moustakas, 1990). Where Moustakas (1990) specifically addresses validity, Kleining and Witt (2001) discuss the need for verification, achieved through considerations of *validity* (inner and objective), *reliability*, and *range of applicability*,

² Recognizing the concepts of validity and reliability can quickly become controversial topics in qualitative research, with arguments as to the applicability and appropriateness of the terms (e.g., Denzin & Lincoln, 1994; Lincoln & Guba, 1985; Patton, 2002; Stenbacka, 2001), I have chosen to maintain use of the terms "validation" and "validity" here in order to remain consistent with authors discussing heuristic research such as Moustakas (1990) and Kleining and Witt (2001).

with the caveat that researchers and audiences must recognize that all phenomena are subject to change through time. In heuristic inquiry, the issue of validity is a question of meaning: does the (re)presentation of the experience thoroughly, vividly, and accurately depict the meanings and essences of the experience (Moustakas, 1990)? Inner validity concerns how the research measures up against itself through the process of data collection and analysis. The primary researcher must continually revisit raw data and determine whether themes and meanings derived through the process of analysis adequately capture and represent the fundamental essence of the experience. Units of analysis will confirm each other, addition of new data will confirm or complement existing data, and ultimately all data should be accounted for and should interrelate; all pieces should contribute to the larger whole (Kleining and Witt, 2001). This process of “constant appraisal of significance” and “checking and judging” (Moustakas, 1990, p. 33) progressively strengthens and verifies derived meanings and depictions of the essence of the experience.

Objective or inter-subjective validity addresses convergence among external sources of information. A common approach to establishing objective validity is triangulation of data sources, methods, and theoretical schemes (Creswell, 2007). Again, as emphasized by Kleining and Witt (2001) and Moustakas (1990), the researcher should strive to capture multiple perspectives during data collection, including multiple sources of data, representations of different voices, times, and places. Convergence of these multiple data sources lends strength to the validity of ideas and representations. Similarly, member-checking enhances validity, offering participants the opportunity to reflect and confirm the thoroughness and accuracy of the primary researcher’s portrayals, or

recommend areas for revision. Moustakas (1990) recommends sharing verbatim transcribed interviews and other materials with participants. Finally, framing the study in the context of existing literature and theories, also referred to as theory or theoretical triangulation (Creswell, 2007; Golafshani, 2003), contributes to theoretical validity.

The concepts of inner and objective validity are consistent with the concept of trustworthiness, specifically credibility and confirmability, introduced in constructivist and interpretivist approaches to qualitative research (Guba & Lincoln, 1994). Techniques recommended for establishing credibility include prolonged engagement and persistent observation in the field, continuous analysis of the data, negative case analysis, referential adequacy, peer debriefing, member-checking, and triangulation (Lincoln & Guba, 1985), again with the goal of accurate representation of the experience. The potential conflict between my approach in the current and the concept of inner validity and verification introduced by Moustakas (1990) and Kleinig and Witt (2001) is the process of identifying units of analysis, and the goal of having all units interrelate and contribute to larger themes and a foundational essence of the experience. For the current inquiry I am curious about the possibility of shared experiences and meanings, especially given the social nature of the program, but, consistent with an interpretivist paradigm, I am equally interested in understanding unique experiences and even developing new understandings and questions as a result of this research.

Reliability is also a controversial issue in qualitative research. Some qualitative researchers argue that the concept of reliability is irrelevant and even misleading in qualitative research (e.g., Stenbacka, 2001), others argue that that establishing validity implies reliability (Patton, 2002), and still others separately address the role of reliability

in qualitative research, albeit under different terms such as dependability (Lincoln & Guba, 1985) to distinguish it from the notion of reliability in quantitative research. Moustakas (1990) does not explicitly address reliability in heuristic research, but Kleining and Witt (2001) preserve the term *reliability*, stating that it is similarly established during the process of data collection and analysis. The authors again emphasize the importance of multiple visitations of the data to check for consistency of interpretation or restructuring to account for inconsistencies, as well as maximum variation of viewpoints. Reliability has been achieved when all existing data has been accounted for and when new data can be imputed into existing categories without bringing new results but rather confirm existing findings. In discussing dependability, Lincoln and Guba (1985) recommend an inquiry audit, reflecting on and keeping record of the ever-changing context of the research and unfolding of analysis and interpretation of results.

Finally, Kleining and Witt (2001) suggest that *Geltungsbereich*, or *range of applicability*, may be more appropriate for explorative research than the concept of generalizability often associated with more traditional quantitative research. Rather than the researcher defining a target population from which to draw a representative sample and to which results may be generalized, Kleining and Witt argue that explorative researchers begin with a broad idea of the phenomenon of interest and the context in which it exists but then inductively discover the *range of applicability*, testing the limits in other times, places, and situations. This idea is consistent with the notion of transferability (Guba & Lincoln, 1994), though the role of the researcher is to provide thick descriptions (see Ponterotto, 2006) of the methods and context of the research, and

it falls to the readers or the audience to determine the range of applicability or transferability.

Specific Methods

I begin the heuristic journey with something that has called to me from within my life experience, something to which I have associations and fleeting awarenesses but whose nature is largely unknown. (Moustakas, 1990, p. 13; Figure 21)

Phase 1: Initial Engagement

Identify personal experience and clarify the question. As explained, though I was unaware at the time, this journey began during the summer before my junior year at college, with my parents helping a family friend care for his three horses, and my reconnection with a high school friend who encouraged me that it was never too late to start with horses shortly before he was killed in a four-wheeling accident. This is how I came to own two off-track thoroughbred geldings, and how I became involved with equine activities and therapies. Each equine and interaction has taught me valuable lessons and shaped me into the person I am today.

Through these experiences, reading, observing, and discussing with others, it became apparent that my experiences were not wholly unique. Other equestrians similarly identify ways in which equine experiences have left them changed. They discuss developments such as patience, balance, leadership skills, assertiveness and self-confidence (but careful of aggression and becoming overconfident), humility, mindfulness, verbal and nonverbal communication, accepting and applying feedback, the importance of smiling and humor even under pressure—not to mention exercising creativity and practical skills such as rigging broken fences, calculating pounds of hay per day and bales of hay per year, measuring out 5 and 10 and 20 meter circles, and

improving depth perception—to name a few. Personally, horses allow me to nurture and be nurtured. They facilitate connection with nature, with myself, and with other beings (human and nonhuman). They encourage me to seek health in body, mind, and lifestyle. Despite challenges and stress, some humans simply cannot imagine another way of being. And it is many of these qualities that are cited as benefits of equine assisted/facilitated therapy, though research in this developing field remains somewhat sparse.

These convergences and divergences fed my curiosity. Most of the humans with whom I engage own horses or participate in equine activities as a business or as a pastime in such a way that equines and equine activities have become a way of life. Most of us share similar attitudes and approaches toward equines in that we engage with equines by choice, we regard them as sentient beings and as family, and we interact with them in some way most days if not every day. We strive to recognize their individuality and work with them cooperatively. They have become integrated into our identity; their presence and companionship are central in our lives. However, no two people have exactly the same experience. What is the equine experience for others—human and horse?

As I became involved with the Veterans' EFL program, the program director and I identified a mutual desire to explore the experiences of those involved, including volunteers, Veterans, the equines, and the program director/instructor, in order to aid in the development of the program, and also, aligned with my interests, to further understand the equine experience in this context, and contribute to a larger understanding of equine experiences. The question: what is the equine experience for those involved in an equine facilitated learning/psychotherapy program for Veterans? This research focuses specifically on the experiences of the Veterans and equines, though experiences of

volunteers, the instructor, and the mental health specialist (counselor) were also considered.

Phase 2: Immersion

Live the question. Shortly after my conversation with the program director, I completed volunteer orientation and arena training offered by the riding center. By the end of the summer, I was volunteering as a horse leader in two EFL classes – one for Veterans and one for adolescents – and as a side-walker in a therapeutic riding class for older adults with Parkinson's disease. Overall, this was the fourth of five sessions for the year, but the first session for the Veterans' EFL program. Two 90 minute classes were offered on different days of the week. Initially I volunteered in both classes, though the Veteran with whom I was paired for one class withdrew from the program after the first week, so I also discontinued participation that day. During the final six-week session, one EFL class was modified to pilot an EFP model, incorporating a licensed counselor in addition to the riding instructor. Volunteers took a less active role in this EFP class, but I continued to volunteer in these classes for the remainder of the calendar year, spending about five to six hours per week at the center.

When classes resumed in January, two EFL classes and one EFP class were offered, each meeting once weekly for 120 minutes. My role at the center also shifted at this time. I became an intern, helping specifically with components of the Veterans' program and participating in the Veterans' classes as an arena assistant, responsible for helping with anything from tacking horses to setting up materials in the arena for the weekly classes. This allowed me to participate in these classes regularly, but without being quite so focused on a single equine/Veteran pair. On gaining approval from the

University of Northern Colorado Institutional Review Board (IRB), I also took on the role of researcher and began collecting data in the EFL and EFP classes. Following this first session, the EFL program for Veterans was no longer offered. One shifted to an EFP model, and the other dissolved due to lack of riders enrolled. I continued my intern role at the center, still participating as arena assistant and researcher in the EFP classes and one therapeutic riding (TR) class, and assisting with the Veterans' program and other center operations as needed. On average, I spent about 12 hours each week at the center. My role as intern also allowed me the opportunity to immerse myself in the experience in other ways, as I endeavored to learn more about Veterans and Veterans' experiences, as well as programs for Veterans, including animal assisted interventions.

My time with the Veterans' program lasted almost exactly one calendar year – five sessions, 38 classes, over 132 hours – and my time with the riding center spanned a two year period in the roles of horse-leader, side-walker, intern, researcher, riding student, student instructor, and finally instructor. Through the center and as a result of my experiences there, I began the process of earning certification as an equine specialist and riding instructor, which furthered my involvement in and investment with the center. Concurrently, I continued to further my knowledge regarding equine care and activities through lessons, clinics, and lectures, and time in the company of my two horses.

Even after my direct involvement with the classes, I engaged in immersion through the data analysis process. Interviews were transcribed, and then I listened to the recordings again as I read through the transcriptions checking for accuracy, and again as I began noting patterns within and across individual interviews as I opened myself to noticing the essence of each individual's experience. I transcribed the field notes and

reviewed each photograph, organizing them and integrating them with the field notes. I revisited and analyzed the attendance records, volunteer observations, surveys, and the Veterans' self-reported wellness ratings, because even though the quantitative data is not the focus here, it nonetheless contributed to my overall perspectives and interpretations – another piece in the puzzle. Next, I developed individual profiles for each participant, equine and Veteran, as well as an overall summary report for the program, which I plan to share with the center for their uses. The energy and attention required by this is why I say I continued to immerse myself through data analysis.

Phase 3: Incubation

Retreat and process. Incubation – or withdrawing from immersion in the question in order to allow for processing information – occurred throughout the process of this research. Central to the incubation phase are the processes of tacit knowing, intuition, and indwelling, as well as some self-dialogue, all underscored by my internal frame of reference. During the process of data collection, I had moments of incubation during my drives from the center at the end of the day, following interviews, and during days between sessions. I would engage in debriefings with the riding instructor and counselor, reviewing observations, conversations, field notes and photographs from sessions, and also had the opportunity to debrief with a colleague. Eventually, I would set materials aside and permit myself to cease conscious engagement. Tacit understandings, ideas and intuitions continued to percolate as I carried on with other daily activities. At the end of one year with the Veterans' program, I discontinued my participation, in part due to changes in my work situation and availability, but also in order to process what I had observed, recorded, heard, discussed, photographed, and shared. I continued to revisit the

data, immerse myself in other related sources of information and experiences (e.g., academic literature, opportunities to learn more about military culture and Veterans, opportunities to learn more about horses, the human-horse relationship, and EAATs). I engaged in peer debriefing with friends and colleagues during my participation in the program and during my data analysis and interpretation. I also stayed in contact with participants, the riding instructor, the counselor, and some volunteers involved with the program to garner their perspectives. My engagements in such activities were followed by further periods of time and space – running, writing, riding, scooping manure – to process and recognize how new experience and information related to the existing information, both concrete (e.g., field notes) and created (e.g., data poems).

Phase 4: Illumination

Become aware of tacit understanding, develop new insights. The next step in the process is to begin bringing tacit knowing and intuition to consciousness. This relies on indwelling, focusing, self-dialogue, dialogue with others, and consideration of external perspectives and information. In this project, illumination of tacit understandings was achieved through purposeful re-visitation of literature, field notes, photographs, and interview transcripts, allowing for additional periods of incubation, followed by reflections on the insights and understandings—noticing from different perspectives elements that had thus far gone unnoticed, or that I had initially interpreted differently. As suggested above, immersion, illumination and incubation were closely linked cycles in this project. Each period of immersion on site or in related activities was followed by a period of incubation, followed by a conscious revisiting to allow for illumination. For example, I recently participated in a workshop sponsored by PATH Intl. and the VA

focusing on EAATs with active duty and Veteran service members. This three-day workshop provided an opportunity for immersion in activities and information salient to this project. Each evening and during the drive home, I was able to incubate, sitting with my experiences at the workshop, not even verbally processing with my husband. This allowed for illumination of some new perspectives and interpretations, as well as confirmation of some of my findings and interpretations. It also became increasingly important to revisit and re-identify the focus of inquiry, as my mind made multiple attempts to stray toward related but tangential ideas while exploring the large and rich dataset and engaging with experiences and ideas outside of the project. Similarly, incubation and illumination involved reflecting on my own internal frame of reference as my awarenesses and understandings changed.

Phase 5: Explication

Explicate tacit knowledge. Explication is the process of examining tacit knowledge by bringing the intuitive realm into consciousness, with the goal of identifying and articulating elements of the experience and exploring layers of meaning. Explication involves indwelling, focusing, and dialogue with self and others, as well as considering the larger context through integration of external materials. In order to frame my interpretations and articulations, I re-identified the focus of inquiry and revisited my own frame of reference, explicating these largely through writing and conversation with myself and others, including my horses, husband, and peers with related knowledge and experience. During this processing, I also compared my ideas and findings to external sources such as books, research publications, information shared in clinics and workshops, others' experiences, and popular media sources.

As I sought to explicate unique and shared experiences and meaning-makings through writing, I also began to engage in creative synthesis, as development of data poems (see Lahman et al., 2010) based on interviews, open-ended survey responses, and photographs were one of my means of explication. This led to creation of individual profiles and (re)presentations of the experience for Veterans and the equines, as well as composite depiction of the experience. As I wrote, the shape of the story changed, and at times began veering down side roads, but I found myself drawn back to recurring shared experiences emerging through field observations, photographs, interviews, and survey responses, and a few particularly poignant moments, quotes and photographs I wished to highlight. In this way, the cycle of explication and creative synthesis.

Phase 6: Creative Synthesis

Synthesis and (re)presentation of the experience. After cycling through immersion, incubation, illumination, and explication, with moments of creative synthesis, I had achieved that intimacy with my data and developed individual (re)presentations and a composite depiction that I felt captured the essence of the experience for the Veterans and equines, culminating in two final poems, one representing the Veteran voice and one representing the equine voice. Throughout this process, related to verification and trustworthiness, I attempted to develop rich, thick descriptions of the research process, context, characters, and experiences. At this stage, I engaged in member checking and peer debriefing, sharing my (re)presentations and interpretations with the Veteran participants and five specific peers: the natural horsemanship trainer friend I had mentioned in chapter two, an individual with extensive equine experience and experience with EAATs, an individual with extensive equine experience and a teaching background

(standard classroom teaching and riding instruction), and two individuals with counseling backgrounds, equine experience, and EAGALA training. I asked these individuals to review my presentation and discussion of the data and consider things like: (a) did it resonate with them?, (b) did it seem accurate?, (c) did it seem reasonable (based on the data, did I over or understating anything? Did I supporting my claims?), and (d) did it make sense? (did I provide clear explanations and examples? Do the themes correspond with the individual representations?). Because the equines could not verify my interpretations directly, I selected my peer debriefing team members specifically for their experience with and attention to equines, humans, and equine-human relationships. Veterans were also invited to speak on behalf of their former equine partners. Veterans were welcomed to add, remove, or change any of the information presented, and to suggest different pseudonyms. As the Veterans responded, I made some slight modifications to the current document, though they indicated satisfaction with what I had produced and provided some updates and further reflections. In the end, I feel this experience has embodied crystallization as presented by Ellingson (2009).

Role of the Researcher

As researcher, I remain aware of my own internal frame of reference—my feelings, thoughts, beliefs, and personal experiences within this shared experience—throughout each phase of the research process, revisiting data, developing themes and characteristics, integrating external sources (e.g., literature), and producing (re)presentations of the essence of the experience. I have acknowledged much of engagement with this topic already, including my multiple roles as volunteer, intern,

researcher, and instructor-in-training at the research site, but I hold some additional beliefs that might impact this project.

I do not believe any participant – human or equine – arrived devoid of knowledge and experience, ready to be filled. Each being involved – Veterans, equines, instructors, volunteers, and myself – came with unique experiences within varying cultural contexts leading to this point and place in time. Each being continued to have experiences outside of the context of the program that further influenced their experiences and interpretations while on-site. Further, in incorporating equines (or other non-human animals) into such an environment, the horses also become a part of this social exchange and co-construction, woven into our process of meaning-making. For example, if I observe my horse seems agitated about being groomed, I might interpret that as the horse being naughty and disobedient, or perhaps I am in a bad mood, projecting negative energy and grooming roughly. Consequently, I might consciously change my mind-set, ease up on my grooming, or decide to skip grooming altogether for today. Perhaps the horse responds positively to this, having initially felt uncomfortable physically and possibly psychologically due to my mood, but now appreciating reduced pressure. My reality is not that the horse is naughty, but that my mood impacts others, and I might be more mindful of this. Therefore, within the context of the therapeutic riding center, there is a complex web of unique and shared experiences, with similarities and differences in interpretation. In this way, there is no ultimate truth to be “discovered,” but rather multiple, equally valid interpretations continually constructed and reconstructed by participants, by me as participant/researcher, and by the equines.

Related to this, my prior and continued experiences with equines influenced my interpretations of the equines' behaviors and the relationships between Veterans and equines. I believe interactions with equines present challenges, but also offer a number of physical, social, psychological, and even spiritual benefits. However, I also acknowledge my belief that human-equine interactions, particularly in a context such as this, may not be appropriate for every human or equine (or combination thereof). I also recognize equines as sentient beings and therefore believe that establishing a mutually-respectful relationship and communication with an equine as partner to be important. Therefore, I also approach horsemanship from a natural horsemanship³ perspective, believing that human and horse may achieve a more harmonious relationship when the human takes steps to understand the nature of equines, become more self-aware, and engage in interactions with equines with appropriate awareness, sensitivity and communication, as compared to someone who views horse as a tool or object rather than autonomous being engaging in a two-way relationship (Birke, 2007, Miller & Lamb, 2005; Skeen, 2011). Many practitioners urge understanding a horse's natural instincts combined with self-awareness and an awareness of basic learning theories in order to form a willing, respectful relationship. Much of the terminology reflects these beliefs; colts and fillies, for example, are "started" rather than "broken," and practitioners speak of achieving

³ The term "natural horsemanship" warrants attention on two counts. Frist, like Birke (2007), I acknowledge that there is a bias toward the male sex in terms such as horsemen and horsemanship; horsemanship or a gender neutral term is just as fitting. However, given the widespread use of the term, I, too, have chosen to use it through this paper. Similarly, the term "natural" is not wholly accurate, in that the relationship between human and horse is arguably unnatural (Birke, 2007; Miller & Lamb, 2005), and the list of alternate terms is long, such as Intelligent Horsemanship, Foundational Horsemanship, Enlightened Horsemanship, or just plain "horsemanship" with no leading adjective. Given the scope and focus of this paper, I am abstaining from that discussion and choosing to continue with "natural horsemanship" as a widely recognized idea.

willing communication, partnership, and unity through patience, understanding, timing and feel.

Though I strove to maintain awareness of personal biases during the study and remained as open as possible, my beliefs inevitably impacted aspects that drew my attention during field observations, follow-up questions I asked participants, which tidbits I chose to pursue and which I let fall to the wayside, and how I am choosing to interpret and (re)present the outcomes of this study. My own beliefs and perspectives evolved as I carried out the process of this research, revisiting the data, garnering feedback from the participants, engaging in my own learning experiences, and attempting to frame this work within the larger context of existing literature.

Participant Selection

Participants were drawn from the self-selecting population of individuals voluntarily enrolling in these particular EFL/P programs for Veterans, offered by a PATH Intl. accredited center in the Western United States. At the first meeting of each session, I explained the purposes of the project and data collection procedures, addressing overall program evaluation and development as well as my research, and went through the informed consent form, providing one copy to each Veteran to keep. I asked that, if they would be interested in participating, they sign a second informed consent form for my records. Additionally, I spoke with volunteers, the riding instructor, and the counselor involved with the Veterans' classes and asked them if they would consent to participate for the purposes of overall program evaluation, and because, as active participants in the program, they would not necessarily be wholly excluded from field observations, conversations and photographs.

The horses were selected for participation by the instructor, sometimes in consultation with the counselor. Pairings were based on Veteran and equine physical characteristics, temperaments, and personality traits, as well as the Veterans' personal and horsemanship goals and the horses' workloads. The same equine/Veteran pairs were maintained for the duration of the session, except in cases where temporary substitutions needed to be made, or if the horse was unable to continue, such as the case with Tyson's lameness. Returning Veterans were asked if they had particular horse they wanted to work with for the subsequent session.

Data Sources

The focus of this inquiry is an in-depth qualitative exploration of the experiences of Veterans and equines participating in an equine-based learning and therapy program at a therapeutic riding center. This qualitative approach was completed in conjunction with a program evaluation during the pilot year of the program, which included quantitative and qualitative elements. Quantitative data included enrollment packets, intake and exit surveys, attendance logs, volunteer observations, and for Sessions II and III, a Veteran self-report "wellness scale." Because quantitative data influenced my perspectives and understandings, tying into this idea of crystallization (Ellingson, 2009), all are described below, and quantitative outcomes are summarized in the appendices. Additionally, the instructor maintained rider progress notes, and the counselor maintained client notes. Formation and assessment of specific rider objectives related to equine knowledge and skills was less formal in the EFP classes largely due to the fluid nature of the daily activities.

Enrollment packet. Every rider at the therapeutic riding center participating in any program other than standard riding lessons is required to complete a packet of paperwork prior to beginning in a program. Required paperwork includes: (a) application form with personal information (e.g., name, age, height, weight, contact information), emergency contact information, and personal, social, and horsemanship goals; (b) release of liability; (c) signed confidentiality statement; (d) medical release; (e) photograph and video release. Veterans interested in the EFL/P classes were also required to submit a physician's permission to participate, and asked to complete intake and exit surveys.

Intake and exit surveys. The intake survey was provided to Veterans on enrolling in one of the center programs, and Veterans were asked to return the survey by the first or second week of the session. This survey gathered basic demographic information (age, sex, ethnicity), military service, primary medical and mental health concerns, treatment status, disability status, and equine experience. Additionally, Veterans were asked to complete a Likert-type survey, rating 24 items related to mental and physical well-being (e.g., "I feel hopeless," "I feel anxious") on a 5-point frequency scale (Never – Always) and respond to four open-ended questions assessing goals for, expectations of, interest in, and hesitations about participating in the program. This intake survey was developed specifically for use in at this center, based on a model provided through the Horses and Humans Research Foundation (HHRF), common symptoms of Veterans interested in the program, and interests of the riding instructor and counselor.

At the second-to-last class of every session, Veterans were given an exit survey to complete and return the following week (the last class of the session). The exit survey included the same 24 item Likert-type scale presented in the intake survey, plus 14

Likert-type items asking participants to indicate level of agreement, on a 5-point scale (Strongly Disagree – Strongly Agree), with a series of statements specific to the program offered through the center (e.g., "Since participating in [this program], I have noticed an improvement in my mood even when away from [the center]"), and five open-ended items asking participants to reflect on whether the program helped them take steps in achieving their goals, what they had expected from the program and whether the program met those expectations, what was most helpful about their experience in the program, and what they would change about the program. The 14-item survey was also constructed for specific use in this program, with items based on the common mission and goals of the program and interests of the instructor and counselor.

Volunteer observations. Finally, volunteers were asked to complete a weekly quantitative assessment of their observations of new Veterans. This weekly survey included 25 items to be rated on a 6-point frequency scale (Never – Always), intended to address five goals of the EFL program: (a) improved communication skills, (b) improved attitude, (c) increased trust, (d) increased focus, and (e) improvement in mental well-being. Volunteers were also asked to provide feedback on four open-ended items regarding observed changes in the rider from the prior week, what the rider appeared to enjoy most that day, a moment when the rider overcame a difficult situation, and any other comments about that rider that day. This instrument was based on an existing instrument utilized with the EFL program for youths and adolescents. Again, volunteers completed this survey for the riders with whom they were paired at the end of every class, resulting in a total of eight weekly observation reports for an eight-week session.

Veteran self-report "wellness scale." For Session II, we attempted to integrate a more formal, quantitative self-report rating scale to be used weekly at check-in and check-out. Modeled after a system used by a similar program, Veterans were asked to rate on a scale of 1 to 10 their anxiety, pain, and mood. However, the women expressed their frustration with and arbitrariness of such rating scales. One reflected that she never knows how to rate herself, because she's never at a zero, "If I'm always at a five, then what?" In fact, all of the Veterans expressed being burned out on paperwork and questionnaires. For weekly assessment purposes, the counselor asked the Veterans to help create a new language to help make sure we were meeting their needs and goals, which led to an informal 11-point rating "wellness" scale, with a score of 0 indicating not well, "I'm in bed, I'm not getting out," or "poopy" and 10 indicating fantastic, "rockin'" or "on top of the world." This scale continued to be used for weekly check-in and check-out for Sessions II and III, as I recorded responses with field observations.

Limitations of quantitative data. Quantitative data were lacking in amount, completeness, reliability and validity. For example, not all volunteers remembered to complete the observation measure immediately following classes, or at all, leading to missing data. As riders became increasingly independent, volunteers were less involved with the riders and equines. There was no system to gauge reliability of volunteer observations (e.g., some inter-rater reliability system). Four Veterans did not complete the intake and/or exit survey. Given the small sample size, it was not possible to establish the psychometric properties of the instruments; construct validity is of particular concern.

I would venture that, without understanding the essence of the experience, it is difficult to assess that experience through selective quantitative measures. Qualitative

data can provide insights into the nature and complexities of the experience, in turn, inform development of appropriate comprehensive measurement approaches and instruments. Because of these reasons, I directed my energies into the qualitative exploration of the experience.

Qualitative data. Primary sources of data for the purposes of heuristic inquiry included: researcher observations and notes, on-site photographs, Veteran and volunteer responses to open-ended survey items, and conversational interviews with Veterans. I kept researcher notebooks for the duration of my time with the program, in which I recorded field notes and observations during classes, notes from debriefings and conversations with volunteers, instructor, and counselor, notes from program-related meetings of which I was part, and personal reflections throughout the experience. On certain occasions I captured the environment and documented activities with photographs. On one occasion, my husband assisted with photographs of an EFL class when I was partnered with a specific Veteran, which required my attention (he was not allowed to join the EFP class). As the sessions progressed and I began to notice patterns in classes, survey responses and interview conversations, such as the desire for social interaction as a motivating factor for participating, I tried to pay particular attention to these moments and exchanges. Sometimes this was done at the request of the riding instructor and/or counselor, and sometimes at my personal discretion. I did limit my use of the camera in order to be present in the classes with the other participants, not viewing from a removed position behind a camera. All participants had signed the video and photo release for the center, and separately indicated consent to be photographed on the consent form distributed for my research purposes. All photographs were shared with the

therapeutic riding center, and at the end of my time in the program, I offered riders electronic copies of photographs of themselves taken during classes.

The third source of data for this project included semi-structured, conversational interviews with participants about their experiences with the program. Participants in each session were asked to participate in an approximately 30-minute interview at the close of each session. These interviews were scheduled on or closely following the last class of the session at a time convenient for the participant, and were audio-recorded on a digital recorder for later transcription. Interviews were conducted on-site at the riding center with the option of grooming a horse or being near the horse pastures as we talked, or at an off-site location of the participant's selection, which included two at coffee shops, one at a Veteran's home, one on a nature walk, one at the location where the Veteran was boarding his horse, and one at the location where a former program horse was now being boarded (the Veteran had permission from the owner to visit and work with the horse). Question topics included attitudes toward equines and toward the program, why they decided to join the program, experiences with the program, and if they felt the program impacted other areas of life.

Initially, I anticipated new participants in each session, so had only planned to do one interview with each Veteran. When Veterans continued participation in the program for more than one session, I submitted a revision of protocol to the IRB to allow for multiple interviews with those Veterans continuing participation for multiple sessions. Ten of the twelve Veterans participated in at least one interview. Three Veterans participated in two interviews – one interview at the close of Session I and one interview at the close of Session II. A fourth Veteran had agreed to participate in a second

interview at the end of Session II, but on meeting, I decided to not pursue the interview. The Veteran had come from a gathering where a close friend announced a decision to join the services, and the Veteran was preoccupied with related thoughts. We ended up spending the time talking more casually, relating our graduate school experiences, grooming and doing ground exercises with the horse. At the close of Session III, I was only able to coordinate one interview with a first-time participant. Interviews ranged from 35 minutes to a little over two hours.

Data collection. On gaining permission from the President of the Board of Directors and acting Executive Director of the riding center, I submitted materials to the IRB for review, requesting permission to both access existing data (i.e., materials in the rider files noted above) and collect new data (i.e., field observations, photographs during classes, and interviews). On gaining approval to proceed from the IRB, I introduced the research project and my role as researcher to the volunteers and Veterans participating in the first session. They were already familiar with me in the context of classes as horse-leader and arena assistant, and as a mildly annoying intern responsible for distributing and collecting the intake and exit surveys. I tried to be clear that participation in the research was in no way required for participation in the EFL/P programs at the riding center. I went through the informed consent form with each human individual involved with the program (Veterans, volunteers, riding instructor, and counselor), providing a copy for them to keep for personal records. Each individual was asked to sign a consent form if they did not object to my presence as a participant/observer during classes. For the Veterans, by consenting to participate they also granted me access to responses on intake and exit surveys. Additionally, individuals were asked to separately initial if it was

okay for me to use photographs and videorecordings of them taken in the context of program activities, and if they gave permission for me to audiorecord interviews. If they agreed to let me use photographs, they were also provided the option of having me digitally alter the photographs to further protect their identity, or use unaltered photographs.

I participated in every class with the exception of one full day (men's and women's EFP classes and one TR class) and one morning (men's EFP class), both during Session III. During EFL, EFP and TR-type classes, I acted as an arena assistant. The role of an arena assistant is to assist the instructor as needed, which might include anything from tacking horses to helping with arena set-up to filling-in for an absent volunteer. On two occasions, I filled in for the riding instructor. I was also responsible for keeping track of attendance logs for funding purposes, so I often began classes tracking down each Veteran and asking them to sign the attendance form. Because I was conducting research, I was also allowed to sit in on check-ins and debriefings with the Veterans in the EFP classes, which other volunteers were not allowed to do. I typically had my researcher notebook nearby and would jot down observations and reflections at the beginning and end of each class. At times I was able to write quick notes during class, and other times I would write acronyms and brief notes on my arms and hands for transfer into my notebook at a later time. I tried to bring my camera with me regularly, and would usually start the day with a few photographs of the property and surrounding environment to help capture the weather and "feel" for the day. Again, during classes I was sometimes able to take photographs, and other times occupied with other tasks. When I did take photographs, they typically included particular tasks or exercises, the Veterans, the

equines, sometimes focused on particular individuals, and sometimes capturing the general scene with the entire group. Photographs were restricted to time with the horses – I did not take any during sit-down check-ins and debriefings. There were also some intense moments when I chose to put the camera away in the interest of being present and prepared to assist, if needed.

At the end of most EFL and EFP classes, the instructor and counselor would debrief with the volunteers to gather their reflections and any observations, though this was not always possible. Following each EFP class, the instructor, counselor, and I would additionally meet to "do S.P.U.D.S." – an acronym for a framework developed by EAGALA to help guide facilitators' reflections toward nonverbal behaviors, including noticing shifts, patterns, uniquenesses, discrepancies, and "our stuff," referencing facilitator personal issues that might result in counter-transference. These debriefing meetings were included in my researcher notebooks.

Near the end of each session in which they participated, Veterans were asked to take part in an interview with me, not to exceed five interviews during the calendar year (corresponding with the five scheduled sessions). Interviews were conversational and addressed elements of the Veterans' program, the Veterans' experience at the riding center, if and what they felt they learned through the program, if they noticed changes in their daily lives away from the center, and similar topics of conversation. I intended for interviews to last approximately 30 minutes; being conversational in nature, some lasted closer to one or even two hours. Interviews were arranged at a time convenient for the participant, and were conducted on-site at the riding center with the option of grooming a

horse or being near the horse pastures as we talked, or at a more convenient location off-site of the participant's selection.

In all, I was able to interview ten of the twelve Veterans, yielding approximately 15.5 hours worth of interviews. One indicated willingness to participate, but never returned my attempts to contact him to schedule a time and location. Another had to leave the program in order to have back surgery. Following the first session, I interviewed six Veterans – three from one EFL class and three from the EFP class. Following the second session, I again interviewed six Veterans – three from the "women's" class (one continuing, one new to the group, and one new to the center) and three from the "men's" group (two continuing and one new). As noted above, I had scheduled an interview with a fourth Veteran from the women's class, but when we met, she was preoccupied with other thoughts and we did not engage in an interview so much as we just hung out with the horse and talked. Following the third session, I was only able to schedule one interview with one of the new male riders. Although I would have liked to conduct multiple interviews with the Veterans who participated in multiple sessions, I was unable to do so in many situations.

At the conclusion of the last class in which the Veteran participated, or the last class in which I participated in the case of those Veterans remaining in the program after I left, I emailed a debriefing form to each Veteran with the offer to also send any pictures I had taken of them during the classes. When I had compiled individual and composite depictions of their experiences, the equines' experiences, and the collective experience, I again contacted each Veteran via email, including copies of the documents and inviting

their feedback and questions. I have also remained in contact with several of the Veterans on a friendly level, or engaged with them at events hosted by the riding center.

No monetary compensation was offered, but participants were (and are) welcome to contact me at any point to learn more about the study. I shared the results chapters with them, and have committed to sharing the final product. Additionally, when possible (i.e., when a Veteran did not stop attending classes unexpectedly), I gave each a carefully-selected thank-you card featuring a print of equine-themed artwork, and provided electronic copies of photographs featuring them and "their" equines if they desired.

Data handling procedures. Signed consent forms were stored in a file cabinet in a locked office on the UNC campus, where they remained for a period of three years. Additionally, I requested copies of signed consent be kept in the locked office at the riding center for a period of time according to their policies and procedures for data management, as governed by PATH Intl. standards and center policy. Paper copies of Veterans' intake and exit surveys are similarly stored in a designated file cabinet in the locked office at the riding center in accordance with their policies and procedures for data management. Enrollment and survey data were entered into a spreadsheet maintained on a password-protected shared drive, to which the Executive Director, Veterans' Program Director, Veterans' riding instructor, and interns assisting with data input have access. Written testimonies from Veterans are also on-file with intake and exit surveys. If any materials were submitted via email, information was entered into the electronic shared document, a hard copy was printed and added to the participant's file, and the email was subsequently deleted. Although I provided participants with my UNC email address, the riding center also provided me with an email specific to their center. Therefore, I limited

communication with Veterans to this email, with the exception of sending the individual and composite depictions for their review. Identifying information on any documents was removed if not vital for maintenance of the riding center records.

Video recordings and photographs were stored digitally on a password-protected computer at the riding center. Audio-recordings of interviews and photographs were saved to my personal, password-protected computer. Audio files will be destroyed at the completion of this project. Interviews were transcribed with assistance from an external transcribing service, with secure file transfer. Potentially identifying information was altered during the process of data analysis, including substitution of pseudonyms for Veterans and equines and removal of other potentially identifying information, such as names of family members and places of work or school. No participant indicated a desire for me to digitally alter photographs. Any individual appearing in photographs who was not a participant in the research was digitally altered, their faces pixelated. Additionally, I removed or otherwise distorted images that might identify the riding center, such as clothing featuring the center logo.

Confidentiality was maximized by maintaining the security of written and recorded information on-site at the riding center in accordance with their policies and procedures for data management, as governed by PATH Intl. standards and center policies. All information was kept in a locked office and/or password-protected. Only the researcher, program director/instructor, mental health professional, and approved interns assisting with data management at the riding center had access to raw data.

Synthesis and Analysis of Data

All data relevant to the Veterans' programs, including enrollment packet data, intake/exit survey responses, field observations, researcher reflections, meeting notes, interview transcriptions, written narratives, and visual information (i.e., photographs, videos) were considered, with the goal of crystallization. According to heuristic inquiry methods, data were considered individually to identify patterns and themes and understand unique experiences, as well as incorporated together in order to produce a depiction of the essence of the experience as a whole, with particular attention to the experiences of the Veterans and equines.

I began this process by analyzing and summarizing quantitative data, including attendance records, volunteer observations, and survey data. An overall report for the calendar year and individual session reports were developed. Concurrently, photographs were organized by individual and by session, class and group. As I transcribed field notes, creating electronic documents for each session, the photographs were integrated with relevant field observations. On return of the transcripts, I read transcripts while listening to each interview to check for accuracy, making corrections where needed. Then I listened again while reading the transcriptions in order to get a feel for the essence of the experience for each individual, also remaining open to noticing patterns and discrepancies between the interviews and other sources of data, trying to keep in mind the question: What was this experience to them and for them? I began making notes, highlighting patterns and what I felt were representative quotes in the interviews.

Following this process, I developed individual profiles for each Veteran, including information from the attendance records, the enrollment packet, the surveys,

volunteer observations, field observations (including the "wellness scale" ratings), and interview quotes. I revisited the photographs with the idea of the individual's experience in mind. Finally, I developed data poems and integrated representative photographs.

Poetry is valuable in research in that it allows authors to explore, clarify, and magnify human existence (Hirshfield, 1997), and though a relatively new practice, several researchers have touched on the use of poetry in research (see Faulkner, 2007; Furman, 2006; Lahman et al., 2010; Richardson, 2001). Data poems are a specific type of poetry in which researchers create poems using participants' own words drawn from data sources such as interview transcriptions (Lahman et al., 2010). Other uses of poetry in research include poetic allusion (referencing published poetry to frame work in the larger literary body), cultural poetry research (studying various cultures' use of poetry), participant poetry as data (collecting or soliciting poems created by participants to use as data), research experience poems or poems from the field (creating poems based on fieldwork to share the experience of conducting the research), autoethnographic poems (illuminating researcher's personal experiences through poetry), and a number of additional means of incorporating poetry into the collection, analysis, and presentation of data (Lahman et al., 2010). Lahman et al. (2010) argue that data poems are perhaps the most accepted use of poetry in research, likely due to the perception of the poems as "objective" in that each statement can be traced back to a particular source (p. 40).

Utilization of poetry in the research process and re-presentation is valuable for several reasons. Richardson (1992, 1993, 1994, 2001), for example, acknowledged and embraced the personal challenge of developing research poetry. Additionally, she explored the idea that the intensive process of creating data poems serves to challenge

notions of validity and reliability in a positive way, showing rather than telling about lived experiences, creating a "vivid, immediate, emotional experience for the reader/listener using [the participant's] words" (1993, p. 696). Related to this, Richardson claimed that data poems (potentially) better represent the participant's voices than decontextualized "snippets" (1994, p. 522) incorporated into the body of the text. Furman (2006) illustrated the value of utilizing different types of poetry to achieve different purposes. There is some discussion, though, regarding the creation and use – or "use and abuse" (Piiro, 2002, p. 434) – of poetry in qualitative research. For example, Piiro (2002) and Faulkner (2007) questioned the quality of poetry produced by researchers with little or no familiarity with poetry, contending that, just as other artists study and practice their trades, researchers should study and practice poetry as an art in order to become a poet rather than a "poetaster" (p. 444). On the other hand, Leggo (2008) expresses concern that "some researchers put poetry on a pedestal" (p. 170), making the case that all people are poets, "poetry is earthy, rooted in everyday experience, connected integrally to the flow of blood in our bodies, expressed constantly in the rhythms of our speech and embodied movement (p. 170). Where I do not meet Piiro's (2002) criteria for utilizing poetry in my research, I hold a passion for reading and writing poetry, and my purpose for utilizing data poems align with Richardson's values – the process deeply challenged and engaged me, leading me to genuinely explore and identify the essence of each participant's experiences, as well as examining my own experiences, thoughts, and beliefs. In questioning how to best and most accurately illustrate the richness of participant's experiences and engage readers/listeners emotionally, data poems felt to be a natural fit – as alluded to by Leggo (2008), it is something I cannot help but engage in, as

I find myself naturally creating, revising, and experimenting poetically through the research process.

As I reviewed and considered each individual's experience, I began reflecting on patterns and discrepancies among individual's experiences, noting these in a separate document. For example, I would pull an idea or phrase like "connections," perhaps with subcategories "equines," "Veterans," and "external – family," noting the Veterans' responses in which this arose, pulling in direct quotes from surveys and interviews and my field observations that captured or illustrated this idea.

For the equine profiles, I relied on center-provided biographies, my field observations, some of the volunteer open-ended observations, Veterans' quotes related to the equines, and photographs. Similar to my process with the Veterans, I created brief descriptions of each equine and my perceptions of the experience, overall, as well as some specific instances. Next, I sketched a composite equine experience, grounded in the data noted above.

Finally, I considered patterns in the experience that seemed relevant to equines, Veterans, and their relationship, pulling photographs, quotes, and observations, that I felt supported my observations in order to develop a composite depiction of the essence of the experience. This included a vignette from one EFP class that I felt illustrated the human-equine dynamics in ground and mounted activities, identification of five themes, and was completed with two final synthesis poems, one representing the Veteran voice, based on interviews and field notes, and one representing the equine voice, based on field observations, photographs, and my own experiences with equines.

Through this process, I sought to produce thick descriptions not only of the context, participants, and experiences, but of the process of conducting this research. I also continued to assess my own changing perspective in light of data analysis, engagement in related activities and with related ideas, and revisited data to consider alternate interpretations. I sought input from others, sharing the individual and composite depictions with the Veterans and members of my peer debriefing team, described above, with an invitation for feedback and recommendations for change in the interest of verification. There were no requests to modify the presentations.

Ethical Considerations

Equines are large, independently acting animals. As such, equine activities can present certain dangers. Working with individuals with a variety of physical, psychological, and socioemotional challenges requires further consideration to ensure the physical and psychological wellness of all participants, human and equine. Several measures were taken through the course of this research to address and adhere to ethical practices.

First and foremost, the therapeutic riding center at which the program took place is accredited through PATH Intl., so the center has established policies and procedures consistent with the standards mandated by PATH Intl. (PATH Intl., 2014b). For example, PATH Intl. requires secure storage and regular maintenance of rider information, including medical clearance and signed releases acknowledging the risk inherent in equine activities. Similarly, certain safety measures are prescribed in order to minimize risk for humans and horses, such as fitting all riders with helmets, maintaining equipment, ensuring properly-fitted tack for horses, recommending certain equine-

handling practices, identifying contraindications for participation, and recommending procedures for dealing with medical emergencies and possible psychological trauma. The riding instructor possessed current certification as a therapeutic riding instructor through PATH Intl., and the psychotherapist was licensed through the state in which she practiced. The instructor and counselor screened potential Veterans prior to admitting them into the program, and the three of us monitored the well-being of the human and equine participants during classes, regularly debriefing after classes. The center's equine manager also monitored the well-being of the equines and any concerns were brought to her attention. PATH Intl. strongly supports that equines are sentient, autonomous beings working as partners, and should not to be manipulated as tools or props or be put in uncomfortable or situations potentially damaging to their well-being (2014a).

In terms of the research, I was guided by PATH Intl. standards and the requirements of the University of Northern Colorado IRB. No manipulations or interventions were introduced that would disrupt what individuals would otherwise experience participating in this program. Prior to collecting data, I gained written approval from the acting Executive Director of the riding center, the University of Northern Colorado IRB (Appendix A), and permission from other personnel affiliated with the program. When it became apparent that I would be conducting more interviews than initially proposed, I submitted a modification to the IRB, which was also approved (Appendix B). All human participants signed informed consent forms, and no forms of material compensation were offered that might coerce individuals into participating. Participation in the program was offered free of charge to all Veterans.

For the purposes of the research, equines were subject only to observations; however, on correspondence with the UNC Institutional Animal Care and Use Committee (IACUC) Director of Compliance, I submitted documentation of the project and protocol to IACUC for review (Appendix C). There were no manipulations introduced to the equines, environment and daily routines, or human-equine interactions for the purposes of this research. All conditions and activities were those to which the equines would normally be exposed at the riding center. On the occasions that I handled program horses, it was as a trained and supervised center volunteer rather than in my role as a researcher. Equine care and use was in accordance with PATH Intl. standards and riding center expectations. The well-being of the equines is monitored by center volunteers and staff on an ongoing basis. PATH Intl. strongly supports that equines are sentient, autonomous beings working as partners, and should not to be manipulated as tools or props or be put in uncomfortable or situations potentially damaging to their well-being. Concerns are brought to the attention of the resident caretaker, equine manager, and/or assistant equine manager and addressed accordingly.

CHAPTER V
INDIVIDUAL (RE)PRESENTATIONS

Program Context

In order to understand and appreciate participant experiences in this program, it is important to illustrate the riding center and Veterans' riding program. The research site was an established PATH International accredited therapeutic riding center, a nonprofit organization established in 1997 by a group of community volunteers, tucked away on the outskirts of a city. The center offered youth, adult, and senior therapeutic riding, hippotherapy, and equine facilitated learning programs, as well as traditional riding lessons, youth summer camps, and a number of additional special programs (such as hospice camps) year-round. The center grounds included two barns, a few paddocks, three turn-out pastures, two indoor riding arenas, one outdoor riding arena, a round pen, and a trail skirting the edge of the property around two of the turnout pastures, as well as several buildings providing office and meeting spaces, a tack shop, and living quarters for the on-site barn manager. It was bordered on three sides by other mid-to-large acreage properties, allowing for a feeling of privacy without isolation. Wildlife, particularly elk and a variety of birds, frequent the area, and the resident barn cat monitored the grounds and greeted visitors.

According to the center, over 1300 volunteers provided 26,700 hours of service to over 700 participants in 2012. At any given time during the research, there were approximately 10 full-time and several part-time staff, and 20 to 30 equines, some leased

from private owners and some owned by the center by way of donation. Breeds ranged from miniature ponies to draft horses to mules. Programs were organized into five sessions over the course of the year: four 8-week sessions and one 6-week session with 2-week breaks between sessions, as well as short breaks for holidays. These breaks were designed to give the equines a respite, and allow program staff to organize for the next session, offer trainings and workshops, grow the programs, and complete other center-related tasks.

The program for Veterans and active duty service members was a relatively new addition at the time of this research, having begun only six months prior to the start of data collection, during the fourth session of the year. All services were provided free of charge, with funding provided through center scholarships and, for qualifying Veterans, through the Wounded Warrior Project. When the program began, it was offered as an EFL program. A total of eight Veterans participated in one of two EFL classes, meeting once weekly for 1.5 hours, comprised of a mix of male and female Veterans (1 female/3 males and 3 females/1 male). The team included the riding instructor and one equine and one volunteer per Veteran. During the fifth six-week session – the final session of the calendar year – one EFL class continued to be offered, in which two male Veterans new to the center participated. The other EFL class was converted to an EFP pilot, with the addition of a licensed counselor to the team. Four Veterans (3 female/1 male) participated in this EFP pilot; all four had participated in the prior session in the same EFL class, so they were all familiar with the center, the equines, the staff and volunteers, and each other. At the start of the New Year, two EFL classes and one EFP class were offered. Following this first 8-week session, no EFL classes were offered. Veterans could join one

of two EFP classes specifically comprised of Veterans, or participate in a TR class not specific to the Veterans' program. A summary of the class offerings is presented in table 3. Coincidentally, the EFP classes offered during Session II were segregated based on sex, simply a byproduct of the Veterans' availability. However, based on feedback from the Veterans, the classes were purposefully divided into a men's group and women's group for Session III.

Table 3

Summary of Veteran Program Class Offerings and Participants for Sessions I, II, and III

Session	Dates	Year	Classes	# Veterans		
				Total	Continuing	New
I	Jan-March (8 wks)	2013	EFL ₁	1	0	1
			EFL ₂	3	1 ^a	2
			EFP ₁	3	3 ^a	0
II	March-May (8 wks)	2013	EFP ₁	5	4 ^b	1
			EFP ₂	5	3	2
III	June-Aug (8 wks)	2013	EFP ₁	5	3	2 ^c
			EFP ₂	5	5	0

^a Veterans participated in 2012 pilot

^b One continuing Veteran attended only one class

^c One new Veteran attended two EFP classes, then shifted to TR class

Program Design and Curriculum

The director for EFL programs at the center served as the riding instructor for all Veterans' classes. This riding instructor is PATH certified with over 20 years experience teaching TR and EFL classes, and developed the center's 8-week EFL curriculum and accompanying volunteer observation forms for working with youths-at-risk. Each lesson

is themed around topics such as communication, trust, self-reflection and respect, empathy, mindfulness, leadership, relationships and family dynamics, problem-solving and conflict resolution, addressing each while developing horsemanship and riding skills through ground and mounted activities. For example, the first class serves as an introduction to equine communication and basic handling. A few purposefully-selected equines are turned loose into the arena and riders observe the equines' interactions, observing what and how the equines communicate, conjecturing about each equine's personality and their role in the herd, discussing herd (relationship) dynamics, and how this information relates to them in terms of working with equines and in other areas of their life. The equines are haltered by the volunteers and the riders learn how to safely interact with and lead the equines on the ground with the assistance of the volunteers, as the instructor takes them one by one into the round pen (Figure 20) to work on establishing a connection with their equine partner by achieving join-up⁴. This first class typically ends with an exercise called "breathe with," where the volunteers hold the horses as the riders embrace the equine, laying their ear against the equine's barrel (ribcage), close their eyes, and attempt to match their breath to the equine's.

In the second class, riders learn about grooming (Figure 21) and tacking (Figure 22), and then have their first mounted experience, bareback and on-lead (bareback pads

⁴ A goal within natural horsemanship is achieving "join up" (Birke, 2007; Roberts, 1997) or "hooking on" (Brannaman, 2009), where the horse, by human interpretations, wants to be with the human, choosing to follow them and be with them because they accepting the human as the herd leader and feel safe in their presence. This idea lacks scientific grounding (McGreevy et al., 2009), and some argue that horse is acting on conditioned responses, learning to behave in ways that reflect submissiveness in order to avoid aversive stimuli. In other words, the horse might be acting on negative reinforcement rather than social strategy (Kruger, 2007; McGreevy et al., 2009; Warren-Smith & McGreevy, 2008), and the human is misinterpreting these behaviors (Goodwin, 1999).

and volunteers helping lead the equine) so the rider can focus on the feel of moving with the horse (Figure 23). Grooming the equines teaches about equine care, names and uses of grooming tools, and equine anatomy while fostering empathy and trust and relating to ideas of care for others and self. Mounting fosters trust, and feeling the horse encourages mindfulness and self-awareness, and often builds confidence. In another class, riders further develop their horse-handling and riding skills by building and navigating an obstacle course on the ground and then mounted, which develops leadership, focus, and use of cues for walk-on, whoa, and steering. This exercise is themed around overcoming obstacles and working through challenges – the riders are instructed to build obstacles that represent challenges in their lives, which also encourages self-reflection, team-work, and consideration for their equine's abilities. At the end of these classes, the instructor has riders circle up and reflect on their experiences that day (Figure 24).



Figure 20. Round pen.



Figure 21. Learning about grooming.

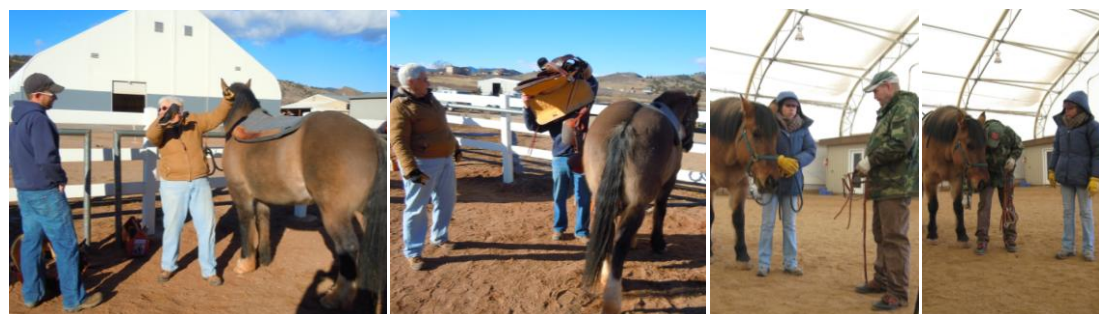


Figure 22. Learning about tack.



Figure 23. First mount.



Figure 24. Arena circle-up and debrief.

Again, with this EFL curriculum, each week's class focuses on developing specific horsemanship and riding skills through structured ground and mounted activities with the equines, all the while addressing larger concepts intended to help the individual develop cognitively, physically, and emotionally. Volunteers paired with each rider complete weekly observation forms with items related to attitude, communication, engagement, focus, and trust, while the instructor also maintains notes about riders' horsemanship and riding skills in addition to self-growth. If riders continue at the center following this 8-week EFL curriculum, they are placed into an advanced EFL class, continuing to advance horsemanship and riding skills. These materials were adapted for use with Veteran and active duty service member participants.

During the Veterans' EFL pilot, the riding instructor expressed concerns about her ability to effectively support and address some of the Veterans' mental and emotional needs, so she asked a licensed counselor to first observe some classes and then join the team in order to offer EFP. The counselor was brought in from a private practice based on her work with other Veterans and individuals with PTSD, and her experience with equines and equine-facilitated learning. She trained and competed in high-level dressage, and was certified through EAGALA to serve as the Licensed Mental Health Professional member of an equine-assisted therapy team (also consisting of the Equine Specialist – in this case, the riding instructor – and the equine). When the counselor joined the therapeutic alliance, she also introduced a new philosophy and approach to the curriculum based on use of metaphor and the classical dressage training scale (Figure 25; see Bryant, 2006, for further discussion of the training scale); she reflected during one class that she would replace "obedience" with "harmony." The counselor shared this

pyramid with the Veterans and periodically used it as a check in (e.g., where on the pyramid are you?, what would you like to be working on?), particularly emphasizing the foundational "3-Rs," rhythm, relaxation, and regularity. For example, Veterans not only needed to establish rhythm with their equine partners in terms of riding, but in other aspects of the overall relationship, such as the rhythm of the weekly routine and even rhythms of grooming and breathing. This could then translate into everyday aspects of life and relationships. Similarly, the concept of contact and collection, often described as "taking a feel," could broaden to include how a Veteran is connecting physically, emotionally, and mentally in relationships and other venues of their life.

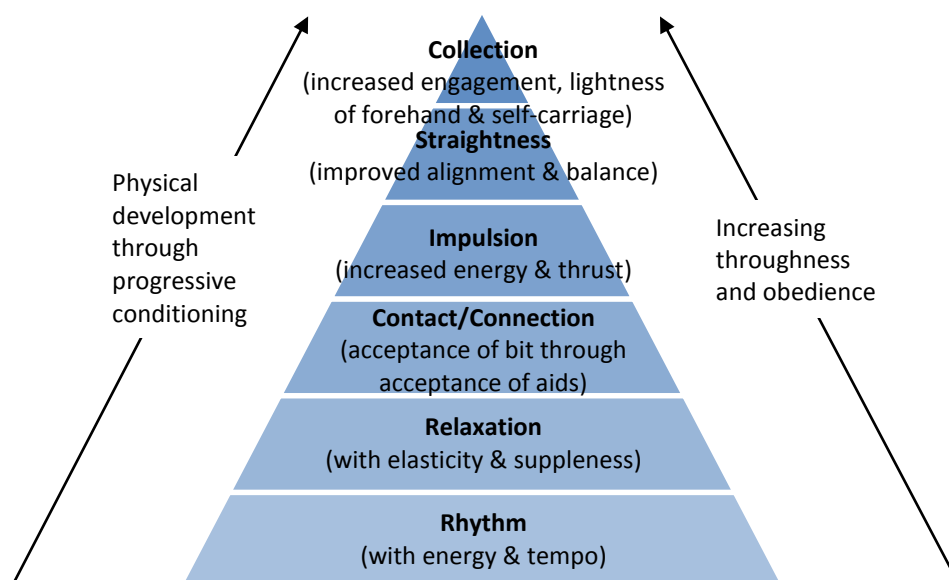


Figure 25. Classical Dressage Training Scale (adapted from United States Dressage Federation, n.d.).

The counselor and riding instructor additionally emphasized concepts such as being mindful and present, making the wrong thing difficult and the right thing easy, riding with power versus force, and learning how to ask for responses and get desired results by using as little energy as they can, but as much as they need to achieve a timely

response, while also discussing the impact of asking with unnecessarily high intensity (resulting in responses such as anger, fear, or withdrawal) or nagging, continually asking with low intensity (resulting in annoyance and acting out, or simply tuning out cues). The counselor frequently presented the idea of riding as a metaphor for life; for example, describing how the ideal posture and body alignment forms a corridor with the body remaining tall, balanced and flexible, which allows the horse to move freely under the rider and allows the rider to move with the horse while maintaining the ability to land standing were the horse to be taken out from under the rider. She would relate this to approaching life in a strong, balanced, and flexible way that allows for movement with enough stability that one could also land on their feet despite crisis or unforeseen circumstances.

There were several differences between EFL and EFP models, notably program goals, personnel, and the structure of each weekly class. First, the goal of the EFL classes was to help participants learn and practice skills such as positive communication, cooperation, mindfulness, focus, and relaxation, but these were approached through a focus on development of horsemanship and riding skills. Weekly objectives were stated in terms of horsemanship and riding skills, but designed with the intent to aid in learning and development in other ways. For example, the goal of the first week is to learn basic horse communication and handling on the ground. The goal of the EFP model revolved around helping Veterans "unwind" from the military experience and address mental and physical health concerns through learning classical dressage – beginning with foundations such as tacking, groundwork, and basic movements, and progressing up the training scale. The equines and ground and mounted activities provided metaphors for

addressing Veterans' relevant issues, and this tended to be pointed out much more explicitly in the EFP group than in the EFL group.

Second, in terms of personnel, both the EFL and EFP models included Veterans, volunteers, equines, and the riding instructor. The EFP classes had the addition of the counselor, who participated in the entirety of the class, guiding the check-in, engaging in the equine activities alongside the Veterans with her horse, Lola, and facilitating the check-out. Volunteers played differing roles in the EFL and EFP classes, as well. In the EFL classes, volunteers were partnered with specific Veteran and equine pairs, and interacted more directly with the Veterans as they assisted the Veterans with catching, grooming, tacking, and riding. This typically began as very hands-on assistance, with volunteers explaining, modeling, and helping direct the horse as Veterans learned about equipment, horsemanship, and riding. As the Veterans advanced their knowledge and skills, the volunteers lessened their involvement in order to promote independence, but remained with their respective Veterans to provide support as needed.

In the EFP classes, volunteers were still assigned specific Veteran/equine pairings, but did not work as closely with the Veterans. This was in part due to privacy and confidentiality concerns, and because most of the Veterans in the EFP groups had prior equine experience and were therefore more independent. As the Veterans participated in the check-in with the instructor and counselor, volunteers caught equines, gathered grooming boxes, readied tack, and stayed with the equines. They also had instruction to groom and tack the equines on behalf of the Veterans if the check-in lasted more than an hour. During ground and mounted activities, volunteers assisted as needed with mounting and dismounting, arena setup, fetching equipment, and serving as horse

leaders and sidewalkers with newer riders. During Sessions II and III, a few of the Veterans in the men's group, which met first, arrived early to spend more time with their horses prior to class. In these instances, the volunteers were on hand to supervise and assist if needed.

Finally, in terms of class structure, EFL classes were typically scheduled for 90 minute periods, though sometimes extended to 2 hours, and consisted of a quick check-in with the Veterans, time preparing the equines (catching, grooming, tacking as needed), ground and/or mounted activities constructed to help meet the objectives of the day (structured around a horsemanship or riding skill in order to help achieve the learning objective), circle-up to debrief and reflect on the day, and dismount. The Veterans would then untack and take the equines out to pasture or back to their stalls as directed. If the activities ran long, the volunteers would tend to the equines while the Veterans debriefed with the instructors.

EFP classes were scheduled for 2 hours, and began with Veterans gathering in a private location with counselor and riding instructor for a lengthier check-in, similar to a group therapy environment (I would also join as note-taker, unless I was needed to help tack horses or otherwise prepare for the riding portion). The intent was to spend 30 to 60 minutes for the check-in, with the remaining time spent with the equines; there were several classes, however, in which the check-in lasted 80 to 90 minutes. Therefore, the volunteers were given instructions to bring equines into tack stalls and prepare equipment, and to proceed with grooming and tacking if the check-in lasted longer than an hour (but we also didn't want the equines having to stand tacked and tied for an hour). At times, equine-based activities for the day were already planned; at other times, they

were modified or formulated based on issues, needs, or desires expressed by Veterans at check-in. Toward the end of Session II and in to Session III, the counselor and riding instructor began introducing pax de deux, quadrille, and drill team exercises, to which all of the Veterans responded positively, so they were incorporated more regularly.

Following group check-in, Veterans would take a short break to use the restroom, get helmets, and get their equine (grooming and tacking if time allowed), and then reconvene for ground and/or mounted activities. The session typically ended with a circle-up and debrief in the arena. Following class, Veterans would then tend to their equines, untacking and taking them to turnout or to a stall for lunch; if a Veteran needed to leave immediately following the class, a volunteer would tend to the equine on their behalf.

Participants

For Sessions I, II, and III, 16 Veterans signed up to participate; 12 actually participated. All 12 of these Veterans (7 male, 5 female) consented to take part in the research, as well as six volunteers (1 male, 5 female), the riding instructor, and the counselor. During these three sessions, 21 equines (14 geldings, 6 mares, 1 molly) were utilized in the Veterans' program, and were thus included in field observations and photographs. Eighteen participated regularly, two (Maggie and Cowboy) participated in two classes as substitute mounts, and one (Tyson) participated in two classes while on-trial with the center, but was unable to continue due to unidentifiable mild lameness. Equine information is summarized in Table 4. The goal of the riding center is to pair riders with certain horses and volunteers consistently, provided the team works well together. There were times when a volunteer was not available for a class and a different volunteer substituted. Similarly, there were instances when a horse was not available for

class, so the rider worked with a different horse that day. For the most part, though, each rider worked with the same horse and same volunteer through each session.

Prior to beginning in the program, Veterans were asked to complete an enrollment packet, which includes a medical release and questions about personal, family/social, and horsemanship goals, as well as a self-report intake survey with questions relating to their service, primary medical and readjustment concerns, mental health treatment status, disability status, equine experience, and wellness. All Veterans completed the enrollment packet, and eight (4 male, 4 female) completed the intake survey. All Veterans were multi-symptomatic, including one who describe being "healthy" but with self-reported (undiagnosed) ringing in the ears and minor PTSD symptoms. Eight reported a diagnosis of PTSD, three reported TBI, and six identified as a combat Veteran with general readjustment issues. Additional diagnoses and symptoms reported included: generalized anxiety disorder, depression, eating disorder, military sexual trauma survivor, degenerative joint disease, arthritis, tinnitus, hearing loss, hypothyroidism, asthma, sleep apnea and other sleep disturbances, fibromyalgia, headaches and migraines, generalized pain (especially knee, neck, shoulder and back), idiopathic peripheral neuropathy, bronchiectasis, restless leg syndrome, muscle spasms, coronary artery disease, and gastrointestinal issues. In terms of wellness, the Veterans primarily experienced anger, depression, guilt, grief, trouble sleeping, nightmares, hyper-vigilance, anxiety, difficulty trusting others, isolating, avoiding social situations, trouble concentrating, self-medicating, back pain, feeling tired, and feeling out of shape.

Personal goals while participating in the program included: regain a sense of normalcy (be normal, gain normal day-to-day life); get out of the house; gain comfort in

crowds and engage in social interactions; increase self-esteem; gain internal resources and learn tools to heal, relax, manage PTSD, and overcome personal issues; and decrease stress, anxiety, and anger. Family and social goals included: feel connected; gain closer relationships; communicate in a healthy way; increase patience; reach out for help; heal; and be better [in their family role]. Horsemanship goals included: become more comfortable, relaxed, and confident around horses; learn more about horses; be proficient at basic tasks/skills; improve groundwork; learn to ride or get used to riding again; gain experience; and several expressed wanting to own a horse in the future.

Six Veterans reported being service connected/not working, and two reported being service connected and working. Ten reported having "some" equine experience, some informally as children and some as young adults participating in organized equine activities, including participation in the pilot classes for this program. Additional demographic information, class participation, attendance, and equine partners are summarized in Table 5. Data collection summary and quantitative data are summarized in Appendices D and E. Here I focus on qualitative data.

Table 4

Equine Participant Summaries

Equine	Breed	Sex ^a	Age	Size (hands)	Description
Bucky	Quarter	G	9	15.1 h	Bucky was donated to the center following life as a working ranch horse. He was playful and curious, and responsive to quiet but clear aids, a good combination for increasing riders' independence and refining their aids. Bucky participated in standard riding lessons, TR classes, EFL classes, and Veterans' EFP classes.
Bubba	Appaloosa	G	23	15 h	Bubba was donated to the center and revealed himself to be steadfast, quiet, & playful. His gentle, forgiving nature, smaller stature, and smooth movements helped grow confidence of new riders. Bubba participated in standard riding lessons, hippotherapy, TR, EFL, and Veterans' EFP classes.
Callie	Selle Francais	M	9	16.1 h	Callie was on loan from her owners after raising a colt and training for show jumping. She was high-energy and sensitive, so worked well with quiet riders ready to advance their skills. Callie participated in standard riding lessons, EFL, and Veterans' EFP classes.
Cowboy	Quarter	G	~5	unknown	Cowboy was a young horse on trial during Session I. He was quiet, curious, and eager to please. Ultimately, he did not join the herd due to his young age and inexperience, but he found a good home and is now riding trails and learning Western dressage.
Fran	Quarter	M	19	15 h	Fran was on loan from her owners after a life of gymkhanas, mounted shooting, parades, trails, and raising colts. Quiet, patient, and responsive, Fran fostered confidence and independence in her riders. She participated in summer camp and Veterans' EFP classes.
Harley	Quarter	M	22	15.3 h	Harley was on loan from his owners after a life of gymkhanas, mounted shooting, parades, and trails. Balanced and responsive, Harley fostered confidence, independence, and a quiet hand in his riders. Harley participated in summer camp and Veterans' TR and EFP classes.
Jasper	Quarter	M	10	16.1	Jasper was donated to the center during Session II after being rescued from unhealthy living conditions, arriving underweight and with feet in poor condition. Though initially a little headshy and sometimes hard to catch, Jasper was a kind, easy-going horse who quickly settled into life at the center. Jasper participated in standard riding lessons, TR, EFL, and Veterans' EFP classes.

Table 4, continued

Equine	Breed	Sex ^a	Age	Size (hands)	Description
Joy	Quarter	M	16	15 h	Joy was on loan from her owner following a barrel racing career. Joy was affectionate and sensitive, spunky with lots of "go," and worked well with quiet, patient riders. She participated in standard riding lessons, TR, EFL, and Veterans' EFP classes.
King	Percheron / Quarter	G	13	16.1 h	King was donated to the center following life working feedlots and ranches as a cow horse and trail riding. He quickly became a favorite at the center due to his gentle but strong and self-assured energy. He preferred independent riders (no horse leader or sidewalkers), and enjoyed carrot stretches to help with his shoulders and back. King participated in standard riding lessons, TR, EFL, and Veterans' EFP classes.
Lola	Friesian	M	10	16.3 h	Lola was on loan from the Veterans' program counselor. Lola trained and competed in high level dressage, but was retired due to persistent subtle lameness. The counselor used her during the Veterans' classes, typically riding her, occasionally incorporating her into ground activities and encouraging Veterans to ride her.
Maggie	Quarter	M	25	14.1 h	Maggie was donated to the center following a life as a Western pleasure and trail horse. She had trust issues, but quickly settled and became a tolerant, well-mannered and quiet horse, but still expressive of her emotions. She was retired following Session I to her forever home with little girls to love on her. During our overlapping time at the center, she participated in standard riding lessons, TR, and EFL classes.
Mischief	American Gypsy	G	5	13.2 h	Mischief was donated to the center specifically for use as a therapeutic riding program. Aptly named, Mischief was intelligent, playful, self-assured, and needed to be kept occupied. He taught riders to be firm and assertive, while providing comic relief. Mischief participated in standard riding lessons, TR, EFL, and the Veterans' EFP classes; the equine manager also added some extra groundwork and long-lining to keep him appropriately engaged (i.e., out of trouble).
Nellie	Mule	M	10	15 h	Nellie was donated to the center following a life trail riding out-of-state. She was very intelligent, opinionated and expressive of her emotions, teaching riders to be focused, firm, and clear. She was also very sensitive, so very helpful in teaching reading equines' body language and the notion of doing as little as possible but as much as needed. As Mike observed, "anyone who is going to work with her needs to get in her zone." Nellie participated in standard riding lessons, TR, EFL, and Veterans' EFP classes.

Table 4, continued

Equine	Breed	Sex ^a	Age	Size (hands)	Description
Patch	Paint	G	8	15.1 h	Patch was on loan from his owner, where he was developing all-around skills in Western pleasure and cow working. He was self-assured and curious, gentle, responsive, and reflected riders' energies. Patch participated in summer camp, standard riding lessons, EFL, and Veterans' EFP classes.
Ranger	Missouri Fox Trotter	G	15	15.3 h	Ranger was periodically on loan from his owners. He was a distance trail horse and patient teacher for many young children. He had a very quiet, stoic, and caring energy. Ranger participated in standard riding lessons, hippotherapy, TR, EFL, and Veterans' EFP classes.
Rosie	Quarter	M	19	14.3 h	Rosie was on loan from her owners for use in the summer camp program, but did so well that she stayed on to help in other classes. She was used as a ranch and trail horse, and was very quiet, sensitive, and gentle. Once a rider established a connection with her, she would literally follow them anywhere. Rosie participated in summer camp, standard riding lessons, EFL, and Veterans' EFP classes.
Stan	Paint	G	14	16.3 h	Stan was donated to the center following a life in the Paint Horse show circuit, showing in Western pleasure and English. He was quiet and easy-going, and good at matching the energy level of the human. Stan participated in standard riding lessons, TR, EFL, and Veterans' EFP classes.
Star	Kentucky Mountain Saddle Horse	G	16	15.1 h	Star was on loan from his owner after she sustained an injury limiting her (and therefore his) activity level. He was competitive in trail and endurance riding, and had natural horsemanship training. Sensitive, affectionate, and social and with humans, Star thrived with confident, independent riders and private classes. However, he developed a large personal bubble in the presence of other equines, and began expressing nervous behaviors, so he left to program and returned home following Session I. Prior to his departure, Star participated in standard riding lessons, TR, EFL, and Veterans' EFP classes.
Tyson	Belgian	G	21	unknown	Tyson was on trial for use in the Veteran's program during Session III. He was very calm and quiet, almost lethargic. He participated in a few weeks of the Veterans' EFP program, as well as an EFL class with adolescents; however, due to persistent mild lameness, Tyson was unable to continue with the program and returned home.

Table 4, continued

Equine	Breed	Sex ^a	Age	Size (hands)	Description
Vinnie	Rocky Mountain Pleasure Horse	G	13	15 h	Vinnie was on loan from his owners, where he did lots of trail riding in the mountains. Prior to joining the center, Vinnie had colic surgery, but recovered well. At times he seemed to become very sensitive to touch, especially in the barrel and flanks. Vinnie was a playful and expressive horse, and tended to be very mouthy. Standard riding lessons, hippotherapy, TR, EFL, and Veterans' EFP classes.
Winston	Percheron x Quarter	G	17	15.1 h	Winston was on loan specifically for use in the Veterans' program. Outside of the center, he did trail riding and packing. At the center, he adapted quickly and embodied the concept of a gentle giant, very willing and easy going. Winston participated in standard riding lessons, TR, EFL, and Veterans' EFP classes.

^a G = gelding, M = mare

Table 5

Veteran Demographics, Class Participation, Attendance, and Equine Partners

Veteran	Sex	Age	Service Branch	Session I (8 wks)			Session II (8 wks)			Session III (8 wks)		
				Class	% attend	Equine ^a	Class	% attend	Equine ^a	Class	% attend	Equine ^a
Darla	F	31	Army	EFP ₁	75.0	Star	EFP ₂	87.5	Ranger Patch	EFP ₂	62.5	Rosie
Jasmine	F	29	Marines	TR	66.7 ^b	Maggie	EFP ₂	75.0	Bubba	EFP ₂	62.5	Fran
Jennifer	F	31	Marines	EFP ₁	87.5	Ranger	EFP ₂	100.0	Patch Joy (Bucky) (Lola)	EFP ₂	100.0	Mischief
Mary	F	41	Army	EFL ₁	87.5	Joy (Maggie) (Patch)	EFP ₂	87.5	Joy Patch (Lola)	EFP ₂	87.5	Patch King
Mike	M	33	Army	EFP ₁	87.5	Winston (Cowboy) (King)	EFP ₁	87.5	Nellie	EFP ₁	87.5	Nellie
Tyler	M	30	Marines	EFL ₁	100.0	Vinnie	EFP ₁	100.0	Vinnie	EFP ₁	100.0	Callie
Daniel	M	32	Army	EFL ₁	75.0	Winston	EFP ₁	87.5	Jasper			
Josh	M	42	Army	EFL ₂	71.4 ^c	King	EFP ₁	12.5	Patch			
Gena	F	24	National Guard				EFP ₂	75.0	Bucky (Lola)	EFP ₂	75.0	Bucky Jasper
Matt	M	44	National Guard				EFP ₁	87.5	Winston (Lola)	EFP ₁	100.0	Tyson Stan
Russ	M	52	Navy				EFP ₁			EFP ₁ TR ^d	87.5	Harley
Jim	M	47	Army				EFP ₁			EFP ₁	75.0	Fran

^a (Equine name) indicates substitute mount; ^b Attendance based on 3 weeks (began TR week 5); ^c Attendance based on 7 weeks (week 6 cancelled due to weather); ^d Participated in EFP for weeks 1 and 2, then moved to TR for the remainder of the session

(Re)presentations: The Veterans

It was just nice to walk around outside the fence that we're normally in. I think that would be my favorite part. (Jasmine)

The following are individual (re)presentations of 11 Veterans and their experiences in and through the program, drawn from the enrollment packets, surveys, interviews, and photographs. Limited information was available for Jim and Josh; Jim completed the enrollment packet, and was included in field observations, but no survey, volunteer observation, or interview data were collected, so I did not create a depiction of his experience. Josh did not complete an exit survey or interview, so I begin with a partial profile based on the enrollment packet, intake survey, and field observations.

The Men

Josh. Josh (Figure 26), a 42 year old male living at home with his wife with two young adult children, had served in the Army. His goals for the program were to gain a normal day-to-day life and sense of responsibility, improve trust issues, gain social interaction and closer family relationships, and learn more about horses. Depression, guilt, grief, trouble sleeping, trouble expressing feelings, difficulty trusting others, trouble concentrating, feeling tired, and feeling out of shape were some of his most pressing wellness-related issues. Josh participated in Sessions I and II. During Session I, Josh was absent two of seven classes with no notification, but seemed to enjoy his time on site. During Session II, Josh attended only one class (week 3) and then stopped coming. Unfortunately, with no exit survey and being unable to schedule an interview, I was unable to explore reasons he chose to discontinue participation. The primary differences between the first and second sessions were the equines, the format of the classes, and the social interactions.

Josh participated in an EFL class on a weekday afternoon in Session I, with the majority of the time and focus involving his equine partner, King. The two other Veterans initially signed up for the class never participated, so Josh ended up being the sole rider, joined by the instructor, three volunteers, including me. He developed a close bond with King, and although King began to struggle with some behavioral issues that seemed related to physical discomfort (see equine (re)presentations section), King's struggles seemed to only enhance Josh's connection with him. The instructor explored possible causes of King's behaviors with Josh, and Josh would remain calm and never became frustrated with King, enjoying helping with King's stretches and exploring how he and King could both be successful. During one ride, Josh observed that he and King both had bad hips, and he could therefore understand King. That same day, I had written in my fieldnotes that "the more help King needed, the more attentive Josh was." The last class of the session – one during which King was presenting many challenging behaviors, including trying to bite Josh's foot during mounted work – was actually one of Josh's most rewarding days. We spent extra time on ground work, grooming, and stretching, with Josh succeeding in having King follow him at liberty (not holding the rope). After he put King away, he reflected that his interactions with King were "therapeutic, I guess."

Josh was asked to come during the EFP class on a weekday morning for Session II, joining the four other male Veterans in the class, three returning and one new, as well as the instructor, the counselor, a few volunteers, and a new horse, Patch. He arrived wearing a cowboy hat rather than the baseball cap he had worn through Session I. During the check-in, he seemed to relate to the other Veterans, connecting over the attraction to video games and working on mechanical things like small motors to keep the brain and

body occupied, and the challenges of being in a relationship. He rated himself as a 9 or 10 on the wellness scale, enjoying getting out of the house, bullshitting and talking and learning a new way of doing things with other Veterans who "get it." King was on leave during Session II, so Josh worked with Patch, and was very gentle and patient with him, talking to him much the same way he did with King ("yeah, Buddy"), and observing he was a little easier to handle than King and had a very nice, easy jog. Unfortunately, this was the last interaction we had with Josh. Perhaps the change in time made it difficult for Josh to participate; perhaps he decided the EFP model with the sit-down check-in time was not something in which he wanted to participate; perhaps he missed the bond he had formed with King; perhaps circumstances in his personal life prevented him from continuing.



Figure 26. Josh and King. Left to right: stretches; learning to bridle; riding bareback.

Mike. A 33 year old male who had served in the Army, Mike (figure 27, 28) now lived with his girlfriend and children, and was not employed but attending school. He had some prior equine experience from riding in both EFL pilot sessions in 2012 (with Darla and Jennifer). In 2013, he participated in the EFP classes for Sessions I, II, and III with regular attendance through all three sessions, and also began volunteering at the center on the barn team and as a horse leader. Winston was his partner for Session I, and Nellie joined him for Sessions II and III. His goals included: reducing anger issues; being a better husband and dad; being a great rider and horse handler.



Figure 27. Mike. Left to right: massaging Winston; riding bareback; showing off a lock of King's mane integrated into his own hair.

Apparently I'm a horse person.
I didn't know that.
It's new and it's exciting. I'm glad to
find something to get involved in,
to give back.

It's been exhilarating, exciting.
Very therapeutic.
I suffer from PTSD, and it helps with
some calming skills,
coping skills.
When I get upset,
go a little overboard,
I try to reflect back
on things here.

The lock of hair from the horses helps
bring me back in those moments.

It's a peaceful setting for me – it
changes my outlook.
Not only the therapy, but now
I'm volunteering here.
It helps me
stay away from some of my addictions.
It's peaceful here. I like being here.

A lot of the improvement and advancing,
I feel like it's the horse.
To know I can do things and
help a horse through obstacles
helps build my own confidence.

I expected to get help more than I had
 from medication and [talk] therapy.
 To just sit down, one-on-one,
 tell somebody how you feel, is
 a lot different than having a task
 in front of you while doing so.
 It may be a military thing, it seems
 easier to open up and share
 while you're busy,
 while you have something to do.

I think dig a little deeper –
 see if there are more things we can
 address and work on.
 Find out what's bothering people,
 what do they need, dig a little.
 Pry a little.

The addictions and things I deal with,
 it may be difficult, uncomfortable,
 but I'm ready to go there,
 cross that bridge,
 talk to people and explain, I know
 where you're coming from, I can relate,
 and this is how I'm getting through it.

The more comfortable I get,
 the more confident I get,
 the horse will comply.

At first it's a little frustrating –
 you just want the horse to do
 what you want the horse to do.

It's helped me to learn to back up,
 assess the situation,
 find another solution.

Horses, I've learned, don't
 respond well to force.
 They want confidence and control,
 power not force.
 So it sends me through a whole process,
 okay, what I'm doing isn't working.
 Let's back up and try again.
 It's helped me learn how to figure that out.

Taking it home, it's helped with the kids,
 to back up, take the time out,
 figure out another way to approach that.
 It has helped my relationship
 to be able to talk through differences,
 I'm learning some pause,
 talk through and work through skills,
 as opposed to just react and move on.
 The skills I've learned here help me.

It's exciting seeing the differences,
 seeing the changes,
 to know I can do those things
 and be successful.
 I felt very proud.
 I hope they see them, too.
 I feel like they have.

[I want to] continue to advance my skills,
 learn to use less rein, more body.
 Many skills on the ground to learn.
 If they listen to you on the ground,
 they're more apt to listen
 when you're on them.
 I want the horse to listen to me,
 obey my commands,
 not be in my space.
 We need to have our space and be able
 to work together.

A horse doesn't forget.
 I like that they know who we are.
 Each time we see them,
 "Hello, I remember you.
 I remember your smell."

Comfortable, natural, real.
 Intimate.
 Confidence building.
 Enriching.
 Truth. Who I am.
 Sharpening my skills
 as a horse rider/handler
 while allowing
 a safe place to open up, experience
 the trauma I have been through.

I'm very appreciative.
I found something I love and am good at,
lasting, caring relationships
from staff and other Veterans.

This place has opened so many doors
to healing and acceptance.
I want to get involved as much as I can.
I feel led to this place for a purpose.



Figure 28. Mike. Left to right: relaxing with Mischief in roundpen; scratching Nellie's ears; petting Nellie; having fun.

Tyler. Tyler (Figure 29, 30), a 30 year old male who had served in the Marines, now lived at home with his wife and worked out of the home. Tyler reported having some equine experience "here and there." He participated in the EFL class during Session I (with Daniel and Mary), and in the EFP classes for Sessions II and III, with perfect attendance during all three sessions. Vinnie was his partner for Sessions I and II, and then Tyler requested working with Callie for Session III. His goals included being more comfortable in crowds and having more patience with his wife, and he was looking forward to bonding and building trust with a horse who "gets me" and would help him become a better person.



Figure 29. Tyler and Vinnie. Left to right: grooming; walking warm-up; trail ride.

I was tired
of being swept under the rug.
I wanted something
other than pills or alcohol
to help with my issues.
I'm willing to try anything.
I knew I could trust my horse.

They sense everything.
They know
what you have going on.
They somehow seem to
help you through it.

[Vinnie] had a bit of an attitude, but
he's really just a big softy.
Hasn't been the easiest horse to work with,
kind of hard to grab his attention.
I feel really confident with him.
Makes it easy when
the horse finally trusts you.

Once you have their trust, it's
a great feeling, knowing
you have each other's back.
I'm glad I stuck it out with him.
He trusts me.

Being able to bond with my horse,
just talking with him,
reassuring him
everything will be alright.
He does the same for me.
I can tell him stuff and
he's not going to go off and repeat it.

If he's relaxed
there's nothing to be afraid of,
what is there to worry about?
Horses are the prey species,
They've always gotta be aware.
If he's not on alert, why should I?

As soon as I get on him, that's
where the connection comes into place,
like, alright, play time's over,
let's go do what we got to do.

I have mixed feelings about
talking beforehand.
I don't mind it, but
if I could spend all day
just being on the ground
with the horses, just walking,
I would be okay with it.
I'll be the ears words
need to fall upon.

But we're here to ride horses.
Let's get on the horses
and talk about issues.
That's an important step for me –
connecting.

It's literally the only thing
I look forward to all week.
I know it's gonna happen.
I will trek through snow.
I will fucking walk there.
I'm gonna see my horse and I'm gonna
groom the shit out of him.

I think I feel out of place
when I'm not there.
Lost when I'm not doing it.

I just really enjoy
learning to trust
not only a horse but other people,
feeling like I belong,
nobody out there judging.
I almost feel guilty,
there's really not a lot wrong with me.
But on the inside
I'm a fucking train wreck.

I've learned
a lot of patience,
learning to deal with people,
everybody deserves a chance,
not judging people by
first impressions.

My anxiety level has gone down a little.
A lot of times I bottle everything up,
wait for it to explode.
The breathing, that really helps.
Just breathe and clear my mind.

I'm looking forward to
a new beginning –
make a bond
not only with the horses but with
everybody;
getting better,
not only myself as a person but
with horsemanship.
continuing my journey,
continuing to be better and not medicated.

It's a great place.
How neat would it be to come back and
return the favor, help out around here?
Help people with the help of horses.
It's done wonders for me.
Give it a chance.
Do it for yourself.



Figure 30. Tyler and Callie. Left to right: stretching; trotting; circle-up.

Daniel. Daniel (Figure 31, 32), a 33 year old male who served in the Army, now resided with his wife and two young children and worked outside the home. Daniel reported some equine experience, having horses and a pony for a year when he was young. He participated in the EFL class during Session I (with Mary and Tyler) and in the men's EFP class in Session II, with regular attendance during both sessions. Winston was partnered with Daniel for Session I, and Jasper was assigned to him for Session II. His goals included: living a long, happy, and healthy life; raising two outstanding kids and having a top-notch relationship with his wife; being proficient at basic tasks while being comfortable and relaxed. For Session II he wanted to be comfortable setting up and riding on his own, and to "have fun, let everything else go."



Figure 31. Daniel and Winston. Left to right: catching; cleaning hooves; saddling; walking warming-up.

It was awesome,
everyone's really cool,
the volunteers and the horses.
it's just great to get out of the house,
do something fun with other veterans
meet nice people
get in sync with a horse
do something new.
build some friendly competition,
camaraderie.

I liked [the check-ins],
some people might say it cut
into the horse time
but that was where we were learning
about trauma and TBIs,
PTSD symptoms
different parts of your brain
and video games.

Being just guys there's more,
 not feelings – experiences –
 seeing the other veterans with symptoms,
 I saw that my symptoms and reactions
 weren't abnormal.
 Makes you feel less weird and different.

I didn't realize
 riding a horse,
 there was so much to it ... how you
 hold the reins and sit and your posture.
 Everything. It looks easier on TV.
 Not something you can learn
 in a couple hours.
 But fun and challenging.

A challenge that I haven't done before.
 Learn more about horses.
 Learn something and improve.
 Leaving here with more confidence,
 Everything I learn, you feel smarter
 that you can do anything.
 Getting to know a horse is pretty cool too.
 Definitely beneficial to come out here.

I think it's the whole package.
 It's nice being outside. Be social.
 I loved the horses,
 they definitely helped me.
 I probably benefited more from
 the counseling.
 The horses were just
 an awesome skill and fun –
 the cap, the thing that put it over at the top.

If a stranger asked me what it's about,
 horses have their own mystique and
 everyone likes horses –
 a big, huge animal,
 yet gentle –
 almost on the same wavelength we are, so
 it's perfect.

Horses are mirror,
 they don't judge people.

I did feel that, especially
 with a challenging horse like Jasper.
 [He] trusted me, so that was nice.
 I was actually helpful in his development –
 I felt that connection.
 When silly old me can catch him
 in a couple of minutes,
 that makes you feel good, like
 maybe he does like me,
 maybe he is getting better.
 His big huge head comes down
 right to me,
 this big animal that can hurt you
 but I never felt scared, so that was cool.

I did some research
 on therapeutic horsemanship,
 horseback riding
 I believe it all, everything – that
 it can help people, all different kinds ,
 do something
 they didn't think they could do,
 or just grow,
 the cognitive stuff.

A result for everything that the rider does.
 Even if they can't talk,
 they can do motions with their body that
 the horse will respond to
 the relationship can grow
 between horse and human.

I learned
 about horses and riding,
 how they're just like us,
 grooming and tacking and
 cleaning hooves,
 horseback riding is more
 technical than I ever would have thought.

I'm not that good. But, I do know a lot,
 about myself, about PTSD.
 At the beginning I said
 I probably had minor symptoms
 and now learning, maybe I do have
 more symptoms than I thought.

I learned
 what other veterans are going through
 I had no idea,
 now my eyes are open
 It hurts the whole family.
 It's really eye opening
 something I want to help.
 By helping the Veteran
 it could help their families.

All kinds of stuff that could be taught
 with the horse as the medium
 you could be grooming and
 hearing about PTSD.

I'm a lot more patient,
 [the] counseling was really good,
 really struck me with parenting,
 being patient.
 [My wife] has noticed the patience
 with the kids especially. And I could
 share those lessons with her.

Things like closing your eyes
 walking through
 what you're going to do next.

Good training for future endeavors,
 just to relax
 take a breath
 think
 before you make
 a crazy decision or reaction.

I got out of the house.
 I got to meet veterans,
 meet a bunch of cool volunteers
 learn about PTSD,
 learn about myself,
 learn a new skill which was horses.

Now, I'm giving pointers,
 all those tips that I've learned.
 I'm driving down the road and see horses,
 I wonder about
 the horse's personality
 if they're a good horse or a bad horse
 if they're malnourished,
 all these questions come to mind because
 I know more about horses,

I'd just thank everyone there –
 they helped me
 more than I thought I needed it.
 This has really opened my eyes
 and I'm glad,
 it's going to make my life better.
 I'd like to recruit some more people



Figure 32. Daniel and Jasper. Left to right: catching; leading (no hands!); trail ride.

Matt. Matt (Figure 33), a 44 year old male who served in the National Guard, retired due to health issues and now lived at home with his wife and three dogs. Matt reported having some equine experience growing up, and participated in the men's EFP classes during Sessions II and III with near-perfect attendance during these sessions. Winston was partnered with Matt for Session II, and Tyson initially started with Matt during Session III, but Stan stepped in due to Tyson's lameness. Matt also took the counselor up on her offer to ride Lola during Session II. His goals included getting out of the house and getting used to riding a horse again; he seemed to particularly enjoy social interactions with the other veterans (Figure 34).



Figure 33. Matt. Left to right: posing with Winston; petting Lola; trotting on Lola; circle-up with Tyson.

The horses stood out for me.
Growing up on a farm,
something I'd kind of done,
would be the easiest to step into.

I was trying to get out of the house,
Function again
like a normal human being,
talk to people,
give me a schedule,
something to look forward to every week,
a sense of purpose.
Gives me an excuse to wear pants
and take a shower.

Everybody thinks
it's great to get paid to stay home,
but it kind of sucks.
Feels like a prison.

It's been good being back on a horse,
doing something I haven't done
in a long time.
It takes a lot of effort for me
mentally and physically.
But it's good practice,
gets me a chance to focus on something,
trying to ride properly
works my attention span a little.

It's nice being out,
 sitting in a group and hearing
 everybody else's stories,
 talking to military people, BS-ing.
 I think it's different if we
 had women in the group.
 I think it's good the guys are there
 being ourselves. And you allow us
 to be ourselves.
 Just a group of guys hanging out
 bullshitting,
 giving each other crap,
 a very relaxed atmosphere.
 As much fun as it would be

If you had more space to ride, I'd probably
 want to do more riding.
 If you had a huge acreage and can
 just go ride
 that'd be really cool, too.
 Go out there and ride around,
 kind of by yourself.

It's a good mix right now – the
 sit down and BS-ing and the riding.
 Go too much more than an hour
 riding around in a circle,
 it gets kind of old.
 Sitting around doing repetitive stuff,
 that's all we've pretty much done
 militarywise.
 A lot of repetition.
 Even my horse will get bored.

He likes to be out.
 Winston came a long way, and
 it helped me to learn
 he doesn't like the bit.
 We got to where
 I pretty much think what I want
 and he would do it.
 I rarely have to do a lot of reins,
 [except] when he wants
 to be a social butterfly,
 always go to the middle of the group.
 Hang out, see what's going on.

Favorite part
 freaking everybody out.
 Fun to be a little evil once in awhile.
 An out of control horse – he didn't
 do anything I didn't want him to.
 We're on the same page.
 Supertrot.
 It kind of made him feel better.

My biggest concern
 I want to make sure [the horse] can
 handle the weight.
 I don't want to hurt them.

I was a little nervous
 about my health,
 mentally, physically, all that.
 I'm kind of pushing the envelope
 using different muscles I'm
 not using on the couch,
 sitting around the house,
 even driving.
 I can't always do it
 how I probably should be doing it.
 But I'm learning [my] body,
 limitations,
 what you can and can't push,
 I've had to relearn all that.

I remember how to ride
 in my gut,
 a lot came back after the first time.
 I was feeling a lot more comfortable,
 more relaxed,
 been able to do a little more.
 My ass hurts less than it did the first time.
 So I pushed myself.
 a year ago,
 I probably wouldn't have done it.
 I wasn't ready.
 Would've got a lot less out of it.

I'm slowly trying to get back to –
don't want to say normal,
normal's pretty much gone – but
the New Normal.
You have to learn your
New Normal.

My main goal –
my immediate goal –
live to be 50.
Get out and do stuff,
stay above ground.

Enjoy life as best I can
as long as I can
do as much as I can
while I still can.
Lots of cans.

It's nice being out,
kind of keep a schedule,
hanging out with military people,
BS-ing,
get to ride horses,
that's always good.



Figure 34. Hanging out after class. Left to right: Tyler, Daniel, Matt, Patch, Mike, Jasper.

Russ. Russ (Figure 35), a 52 year old male who served in the Navy, was now retired and living at home with his wife and dog. He had two children, grown and out of the house, one also serving in the Navy. Russ did not report any prior equine experience, and started in the men's EFP group for the first two weeks of Session III, partnered with Harley. He then transitioned (with Harley) to TR lessons with another Veteran, largely due to scheduling, but Russ also reflected that he didn't feel the EFP class was a good fit. His goals included developing more understanding toward himself, finding feelings other than anger, and finding more internal resources, as he didn't have a lot of support through family and very few friends; socially, he wanted to be able to have contact with and start trusting other people. Russ also wanted to become more comfortable with horses, to the point he could have his own horse, which he did shortly after Session III began.

[My horse] is more therapeutic than not.
I don't have a lot of other people,
Nobody I feel I can do anything with.
He's my partner.
He is always here.

Hoping to start to open up
within myself,
find myself a little bit more,
trust myself.
Start learning how to accept myself.

I don't think at any other time in my life
I would have been ready
for [this program].

If I could have achieved that
after a 15 year lock down
I would have loved to
apply it toward others.

When I found this program.
I thought,
I've got this fear.
If I could overcome the fear I have
of horses
that could start helping heal.
I'm going to start getting that
comfort,
start understanding.

The hardest thing is
it took a couple of weeks to get
comfortable
not with Harley, but going out,
being able to trust the people around me.

Once I got on Harley,
it really started to come together.
After that first day I realized
I was capable
doing something I had never done before.
Something new to me.
Something I was going to have to work at.

With a horse, I had to actually be taught,
 which was good for me.
 It made me realize somebody could
 give me instruction
 and I was able to do it.
 I took more pride in the fact that
 I had to be taught something
 and I was successful at it,
 than anything else
 I have probably ever done.
 Just in that one two-hour period.

Trotting scares the hell out of me still.
 I know it'll come. I won't quit on it.
 Even though it scares me,
 I know I can do it.
 That's one of the reasons
 I'm excited about it.

What people don't realize is
 when we have had that [voice]
 in the back of our minds,
 "You're wrong, you're wrong, you're
 fucking wrong, you screwed up,"
 for me it's been in there for
 ...20 years?
 Not something you can just turn off.

One of the things I hate most is when
 a therapist or layperson says
 just don't think about those things.
 When I saw that tank commander's head
 partially blown off,
 the loader's arm
 blown off from the shoulder down.
 Yeah. I'll just forget about that.

I was going [to therapy]
 Every three to four weeks,
 now once a month.
 I felt like experiencing
 something completely different.

For me, being able to get on,
 that is more therapy.
 The deep breathing aspect can help.
 Time with the curry comb
 brushing Harley out.
 That's very relaxing.
 For me, I can't concentrate
 when somebody is talking, telling me
 to feel the...whatever.

While I'm there, I'm at peace with myself.
 Getting the point I can take that with me
 while I'm driving home.
 I lose it when I get home, but
 to be at peace with myself while I'm there
 is so wonderful.
 Don't know how long since
 I've experienced that.

I wish the entire world could understand.
 Capture that feeling.
 Once I get on a horse
 I'm not thinking
 about anything else in the world.
 The calming that I get
 for that moment.

Driving out to see [my horse],
 No one in my life meets me like that.
 I put my hands on him – he
 doesn't flinch, try to get away.
 I feel him relax.
 I feel my heart rate slow down.
 Relaxation.
 The peace that it gives me.
 Powerful.
 Without talk, he communicates
 better than any human.

I have learned that
 horses are going to behave a lot like
 their people. The people
 create their horse's attitude.
 Horses are to be respected at all times.
 Keep aware.

I have major trust issues
with myself and others.
Anxiety. Paranoia.
The issues go even deeper than I thought,
keeps me from talking to people,
going out in public. Sometimes
I feel physically ill.
I started to learn relaxation.
I started to feel
more positive toward myself.

[They] helped me
gain experience,
gain confidence,
allowed me to get on Harley,
build confidence in myself because
I was able to really work with him.
Not judging,
they listen when I talk,
looking at me while I talk.
I feel like I matter.

The horses are great.
Riding is an integral part of the program.
I think the most enjoyable and helpful part
Was actually the instructors.



Figure 35. Russ and Harley on the trail.

The Women

Darla. A 31-year-old female who served in the Army, Darla (Figure 36, 37) now lived in her own home with her dog and attending school. She had prior equine experience, through English riding lessons and both EFL pilot classes in 2012 (with Mike and Jennifer). Darla participated in the EFP classes for Sessions I, II, and III, with fairly regular attendance during the classes except for being out of town for the first three weeks of Session III. Through the pilot sessions, Darla had formed a close bond with Star, so they continued to work together for Session I. Following Session I, Star returned to his owner, so Darla tried working with Ranger and Patch for Session II, and Rosie partnered with her for Session III. Darla's wanted to learn more tools to relax and manage her PTSD, communicate in a more healthy way with family, and continue to improve groundwork and riding skills. For Session II, she elaborated that she wanted to feel stronger and more balanced in the saddle and keep working on form and transitions. Additionally, she wanted to not miss any sessions, give it her all each week, and keep pushing toward healing old wounds.



Figure 36. Darla and Star. Left to right: petting; hugging; feeding hay; closing eyes and taking a breath.

It's been challenging,
in a positive way.
These horses,
they've shown me so much
about what I've got going on
even if I don't want to admit it.
You can't really lie to them,
they don't lie to you.

They're all so unique and have
their own personality traits.
Star mirrored me so well,
we were on such a parallel path.
He has walls up,
and as much as I appear open and friendly,
there is a lot that I keep inside.
Working with him,
watching him slowly open up to me,
well, if he can do it, then so can I.
He's good medicine.

Coming out here, it's just one big mirror.
Sometimes I don't like what I see
in that mirror, so it's good to have
but it's not easy.
It is work even though it's a labor of love.
Tough, and exhausting.
Some of the best times I've had
ever.
There are just so many layers.

But I'm grateful that I've had a chance
to have that mirror,
get a better idea of where I am and
where I would like to be as a person.

I worry a lot about the horses.
I see the horses
stretched a little thin.
It makes me sad to think
they're only able to do this for so long
before they burn out.
It's like they're constantly
being handed over to different people.
Handled by different volunteers,
different staff members, different clients?

I think that wears on them and
they're the heart and soul of this.
I start wondering
Who needs this the most?
We're able to walk around and speak,
be fairly independent in our lives;
we've just got some tough emotional stuff.
There's only so much
money, so many horses.
That's a part of our training –
Who needs this the most?

And what happened with Star,
I could see it coming. I think about
what that must be like for him
to have so many people around him
all the time
when he just wants consistency.
I'm sure that some horses thrive –
others I think it takes its toll on them.
It just makes me sad
he could still be out here to help people.

I think of the horses like Bubba, a saint,
and they help people so much.
How much is Bubba going to get used
before he doesn't have anything left?

It's like that in military too,
you step up, show that you're capable,
go above and beyond
not just the minimum.
You get more and more stuff
stacked on you until you break.
That's what happened to me, so –
again, with the mirror.

All of that is in the background for me –
it's made it tough to keep coming out here.
Not wanting to like overstay my welcome,
wonder what that's costing everybody.

What keeps me coming back.
 The love tank – getting it filled up.
 To know there are people that give a shit.
 Being a part of the extensive community,
 having it be a positive community –
 it's a place to come out and feel like
 you're a part of something bigger.

That comes from the horses but also
 the people.
 Like-minded people who have
 the same passion for horses and
 for helping.
 You can feel it.

And, seeing myself progress.
 There has been a lot of improvement.
 Being able to say no.
 Realizing
 [riding] is not really why we're here.
 To consistently be out here,
 learning that I don't have to run away
 every time things get tough.
 Learning to trust.
 I can open up to people.
 Still scary, but I need to keep at it.

I have a boyfriend.
 That right there is a big thing.
 Learning to trust
 to not assume that
 everybody's out to get me
 that I can open up to people.
 Those things
 have been fostered from being out here
 have grown from being out here.
 Those are a part of me, but
 gets buried in all the bullshit,
 the anxiety,
 the emotional trauma.
 I'm starting to realize that they never left,
 were just buried pretty deep.
 This place has kind of
 resurrected some of that.

And it's been tough,
 being challenged
 having to stop
 take a look at myself.
 Growth through
 Pain and anguish.

We're not out here to
 learn how to ride horses.
 We're out here to get familiar with horses
 enough [to] have them be this great tool.
 If that's what gets Vets in the door –
 thinking they're going to work with horses
 and it's roses and sunshine,
 cool,
 but at some point,
 it needs to go to a higher level.
 This whole treading water shit
 is not helping.

I need to be challenged,
 to be pushed.
 Now that we're civilians, we need
 new tools,
 a way to get back into society
 in a way that makes sense to us.
 You can't go back to who you were before
 you're never going to be that person again

A part of me feels a little lost,
 I don't have as much purpose anymore
 I don't have that thing to identify with,
 like, I do this, this is me.

If I come work with horses,
 that's something.
 good, hard, honest work
 getting dirty and working with them.
 We only do our little part
 but if it makes the horse's day better,
 that's an accomplishment.
 He's got loved on,
 gotten some attention, some affection,
 they need that,
 contributing in that way
 we feel like a part of something.

I think it helps foster
now I'm going to open up because
I've got this job to do.
It is easier to sit here and talk to you
while I've got this horse to brush.

[The horses] provide by just being here
letting us get all of those things back.
This living creature
gives you immediate feedback,
the kind you don't get from a lot of people.
This big, dirty creature
needs a lot of care.
This big, huge creature
could go buck wild,
and then you get them to be sweet
and to listen, and to go along with what
you've going on that day,
that's something.

Parts of me buried in all the bullshit.
I'm starting to realize they never left,
just buried pretty deep.
This place has kind of
resurrected some of that.

I wish there were
a lot more horses,
funding for Vets that want to keep coming.
I don't think they can hammer out
everything they need to
in a 10 week session
and then be done.

I want to do whatever I can to help.
I think that this is like a life line.
No matter how tough everything else gets
to have this safe harbor.
I don't need to worry. For right now,
the least I can do is to show up.
It's all been such a learning process,
and I keep coming back.



Figure 37. Darla. Left to right: petting Ranger; riding Ranger on the trail; introducing Rosie to the big ball.

Jennifer. A 31 year old female who served in the Marines, Jennifer (Figure 38, 39) now lived with her cat and was focusing on her recovery and volunteering at the center. She had prior equine experience from her participation in a therapeutic riding program at another riding center and from the EFL pilot sessions in 2012 (with Darla and Mike). She also took standard riding lessons and volunteered at this center. Jennifer joined in all three EFP classes for Sessions I, II, and III with near perfect attendance for session I, and perfect attendance for Sessions II and III. Ranger was special to Jennifer, and she continued to work with him for Session I. During Session II she worked with Patch, Joy, and Bucky, and during Session III she partnered with Mischief, who she had worked with in her lessons and formed a close relationship. Jennifer also took the opportunity to do some groundwork and riding with Lola during Sessions I and II. Her personal and family goals for the sessions were to: decrease anxiety, work on her self-esteem, work on her voice and boundary setting, reach out to her family for help, and learn how to harness her flame (energy). Her horsemanship goals were continue to work on her connection with horses, specifically working on transitions and using aids versus corrections. Leading into Session III, Jennifer decided to pursue certification as a therapeutic riding instructor.



Figure 38. Jennifer. Left to right: hugging Ranger; kissing Ranger; riding Lola, working with Mischief in the roundpen.

Even a bad ride is a fabulous day.
I like the other Veteran participants,
[the counselor], amazing in
her knowledge,
the volunteers,
welcoming and helpful.

I like
that it's not in just riding,
it's processing,
using the horses to practice
skills, emotions, talk about feelings.

It's very powerful.
So much easier because
a lot of those things
you can't see or feel,
this [is] more tangible.

The day processing on the sensory trial,
Ranger, he stood so calm,
didn't move a muscle,
not a flinch or twitch
while I was talking.
I didn't have to worry about
trying to control him, redirect him,
he just was listening
to me.

The horses in the other pasture came over,
standing, listening.
[not] eating or fighting,
trying to get over the fence,
or anything.
They just stood and watched,
protecting us,
listening to us, wanting
to be a part of it.

Lola in the round pen.
trying to get her to respond to me,
make a connection.
what is it that I need to do?
Ground myself.
Kick some dirt on it, stop my feet,
took a deep breath.

Something did change.
A little trot, looked at me, came right in,
lowered her head, let me pet her face.
Instant gratification.
I got on her and she listened,
she responded.
I had to take it to the very basics,
walk, whoa,
walk, whoa.
I was able to do it.

She's so beautiful, so majestic, so
 ... wow!
 and I'm just a hack.
 Waiting for her to want to come to me,
 instead of initiating,
 because I didn't feel worthy.
 [The counselor] helped me
 empower myself,
 to say, yeah, I'm good,
 I'm going to take care of you, and
 it's okay.
 I'm going to love you and take care of you,
 and it's all good;
 it's okay for her to listen to me,
 I deserve to be listened to and heard.

This approach to my healing –
 more holistic, more spiritual,
 so much more helpful than
 the traditional processing.
 I am able to take the breathing,
 the grounding
 and apply it all over.

Some days I don't want to get dressed.
 When I screw up, have a bad day,
 abuse my eating disorder,
 down on myself and frustrated,
 "Damn it, I screwed up again!"
 So depressed
 I don't even want to come riding,
 but I make myself go,
 and have never once left feeling worse,
 always feeling better.
 So I keep telling myself,
 just make it till then.

I'm trying
 to treat myself with more compassion
 Mischief is like a part of me.
 Never once have I
 gotten frustrated or angry or upset
 with him.
 Calm and patience.

A really difficult ride,
 it's almost more fun,
 I learn even more from him.
 Or he did really great,
 we had such a connection.
 I want to get that better connection
 with myself.

Ranger – amazing kind soul,
 relaxed and patient,
 strong, soft spoken, gentle,
 healing,
 accepts me as I am no matter what.
 Makes me feel ... special.
 I don't allow myself
 to have a lot of connections.
 I'm able to feel a connection with him.

You have to work
 to develop that connection –
 very healing, very powerful.
 The ground activities
 especially helpful building connections,
 being grounded,
 getting more comfortable in my skin.
 Grooming
 where you build your bonding,
 build that connection
 say 'thank you' for your hard work today.

Thank you
 for working so hard,
 being so kind and patient.
 I'm going to take care of you
 like you took care of me. And
 they will protect you.

It's everything.
 Their expressive features
 the way they can communicate
 and you can communicate
 without having to really say anything.
 They can sense your intents.
 Picking up poop,
 grooming.

Ground work is one of my favorites
because you get to connect –
really, really connect.
They see you, you see them –
their response to what you're asking –
it establishes a more intimate connection
and trust.
They follow me
without a lead line.
I love that.
Building a relationship together.

It's a learning process.
Not everybody listens the same way,
hears the same way,
just like horses.
Each horse is so different –
they all need
something a little bit different,
like people.
Figure out how you can communicate
with each of them,
and learn something new about yourself
with each horse.

You get to learn and say,
"look, it's okay,"
and they do the same for you.
It gives you hope, like,
"I can do it too."

Horse therapy has been
a positive way
to utilize and practice my skills,
even when I'm not riding;
the safe place to be
upset, happy, worried, whatever
something to look forward to.

When I'm feeling depressed,
that's it, I'm done,
I want to check out,
I want to quit life.
Just make it till Wednesday for my lesson.
Make it to Friday for the Veterans group.
Make it till the next time I volunteer.
Make it just a few more days.
Once I'm there I usually feel better.
Even a bad ride is a fabulous day.



Figure 39. Jennifer. Left to right: riding Joy; petting Joy; riding Patch; riding Mischief.

Mary. Mary (Figure 40, 41), a 41 year old female who served in the Army, now lived with her boyfriend (who became her fiancé) and their dogs and attended school. Mary had prior equine experience from her participation in the first of the two EFL pilot sessions, where she had formed a connection with Joy. She returned for the EFL class during Session I (with Daniel and Tyler), and the women's EFP classes for Sessions II and III, with near-perfect attendance during all three sessions. Joy again partnered with her for Session I, with Maggie and Patch subbing in for two of the classes. Through Session II, Mary worked alternately with Joy and Patch, as well as taking an opportunity to ride Lola. During Session III, she worked with Patch and King, and began taking standard riding lessons in addition to the EFP class. Her horsemanship goals were to increase confidence and skills with horses; her personal goals were to continue decreasing stress and anxiety, and increasing confidence and the number of "good, happy experience I have, and I know the horse work really does this."



Figure 40. Mary. Left to right: first mount on Joy; walking Maggie; riding Patch.

The biggest thing was more of an Unlearning.

I always thought riding horses was just get on the horse and ride it. Throw on a saddle and go ride.

But it isn't.

At all.

At.

All.

Definitely has caged my attention

More than other things have.

When I was having a lot of anxiety,
trying to find the solution to
eliminating anxiety.

Why don't you have a
different perspective?

Relating it to
how you facilitate the horse
not having a super big reaction.

Learn how to do it
with the horse
so you can do it with yourself.

Why don't I just chill out,
use my experience
with the horse,
like being calm,
then something bad
is probably not going to happen.

I'm not anxious.

Definitely because of
the horses.

It's also improved my confidence.
My back doesn't hurt. I usually have
no desire to run to the car, but
I just had a great ride
and I run to the car like
I'm excited to go through the day.

Personal interaction time
with the instructors
was great. Individual instruction
geared toward
individual experience and needs, but
there is always this group inclusion.

Morning huddle...that helped...
check in with everybody else,
have a feel for
what everyone's going through,
be more
tuned in.

The people there – you don't
feel like you have a disability.
Everybody talks to you like
you're a normal person. It felt easier
to talk about it. It just
knocks
down
the barriers.

After the ground activity,
when we did get on the horses,
everyone was a little more
confident maybe?
Or calm? I felt more
balanced
when I got on the horse.
It helped me
hone in on the horse
get into
horse mode,
being more perceptive
more compassionate.

Even in that exercise,
civilians
was the big problem. You have to
completely remodel your behavior,
have these two hats
that you wear simultaneously.

More like a mask –
what you're feeling on the inside
completely opposite
what you're projecting on the outside.

You can't really quantify
what your day is like.
I have flashbacks
probably 10 to 20 times a day.
It's constant.
Some days they drive my life or
drive my mood.

People see
you're behaving normally
and think
you're fixed.
It's kind of like that whole
reaction time
with the horse.
It's not necessarily that
this is gone or
I'm healed.

You can really convince yourself that
you're just helpless.
Awareness is changing –
a lot of people
don't know what it is or
how to deal. So
they treat you different.

Coming to terms with the fact that this
is a lifelong thing,
it really does help you
accept a calmer way
of dealing with it
than being brutish and
forcing it to happen.
Understand
the importance of possessing
my own personal power
in the absence of force.
Deepening my understanding of
being a rider
through a deeper awareness of
myself.

More of an
Unlearning.
I think [riding] kind of
helps you hone in,
that's the hover button.



Figure 41. Mary. Left to right: Mary petting Lola; riding King on the trail.

Jasmine. Jasmine (Figure 42, 43) was a 29 year old female who served in the Marines, and now lived at home with her young son. Jasmine had no prior equine experience, and began taking private TR lessons during the last three weeks of Session I before joining the women's EFP classes for Sessions II and III. She had fairly regular attendance during the classes, though her participation during Session III was limited due to a back injury. Maggie partnered with Jasmine for Session I, Bubba joined her for Session II, and then Fran stepped in for Session III. Jasmine's goals were to "be normal," address some of her anxiety, connect and interact with her family, and learn to ride and be more comfortable around horses.

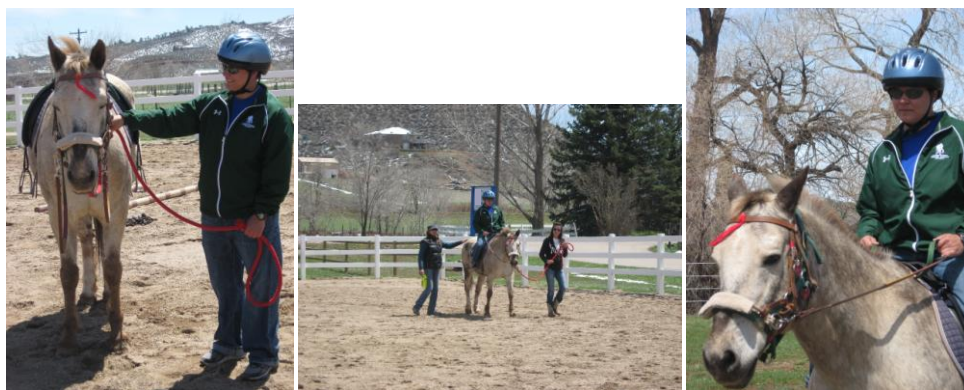


Figure 42. Jasmine and Bubba. Left to right: petting Bubba; riding in the arena; riding independently on the trail.

It was just nice to walk around outside of the fence that we're normally in. I think that would be my favorite part.

It's just calming, no matter what. I would take this over an office any day. I was in therapy for five years, this eight week program has gotten me further than any therapy I've done.

I have only done therapy in an office setting. Didn't feel like it was getting me very far.

When this came up, I thought, animals play a huge part in recovery. I will give it a chance see how it would be able to help me. Maybe that could help me.

Definitely something different. Didn't know what to expect. I guess I'm trying to find out more about myself. I want to relearn how to be more compassionate]. Just trying to find some peace.

The whole recovery process,
it's not a quick fix,
[but] I was at least acknowledging
things I wanted to change.

I was able to escape.
It's so peaceful up here
everyone is nice and compassionate.
You're outside an office,
you have beautiful scenery.
The horses are just so calming.

I'm always rushing.
Rush, rush, rush,
no time
to enjoy what's around you.
[This] requires a certain amount
of patience,
there's no rush.

[Bubba] is kind of slow,
going at his own pace,
that will be good for me
because everything is such a rush
I don't ever
truly enjoy anything in my life.
It would be good if I can
stay with [Bubba],
learn to go slower.

It's just calming, no matter what.
Even if you are having the worst day ever,
knowing you're going to come up here
be around an animal – they're just
providing so much by being there.

It's nice just knowing
there is something that can
calm you, and you can sit there and
talk to them or whatever.
They're not going to say anything back,
judging you or anything.

Just being around them,
it's a great experience.
I'm really grateful.

I like the grooming –
I find that very calming.
The riding - it's empowering to know that
you can get the horse to do what you want
if you do the right thing,
but I still like grooming the best.

Horses kind of scare me
they are big and powerful.
It's nice [the volunteer] was there
making sure I was okay,
she didn't leave until I was
ready to do it on my own.

I like that the group was small
and all female – I think we are able
to relate more to each other.
[the group] wasn't as scary
as I thought it would have been.
Everyone got along really well.

I really liked checking in – even if
I didn't have anything to say,
it was nice to hear I'm not alone,
not the only one struggling. To
lend an ear to the other girls,
that's just as important.
You could just see
how good it was for them
to be able to talk and not be
judged or afraid.

It's nice that there was no
timeframe, so it wasn't rushed.
It's good that you go for
how long it needs to
and if that meant the riding got cut short –
there is that give and take.

[My roommate has] seen change
for the better.
I have seen a change in myself
that's the most important part,
seeing it yourself.

I'm more willing
to talk to people in my life
about things that bother me, when before
I kept everything to myself.
If you don't speak,
no one is going to know
what you're feeling.

For me to follow through on something,
to come up, participate
in a group and in riding –
each time I did was an accomplishment.
It's a big deal.
I'm learning that it's okay
to have friends,
to trust people.

I [keep coming] to have more quiet time,
to continue work on my issues.
It's definitely worth it.

I want
Compassion.
to be more comfortable on the horse,
learn how to appreciate things,
start learning to focus on the positive,
focus on things that I once was and
learn more about [myself]
focus on when I'm here, just
being in the moment.

They should offer it
to as many Veterans as they can
it does help. Even if someone
didn't like [horses], I think they can benefit
from what [the horses] can do for us.
Every part of it was great.

I like the trail.
It was just nice to walk around
outside of the fence that we're normally in.
I think that would be my favorite part.

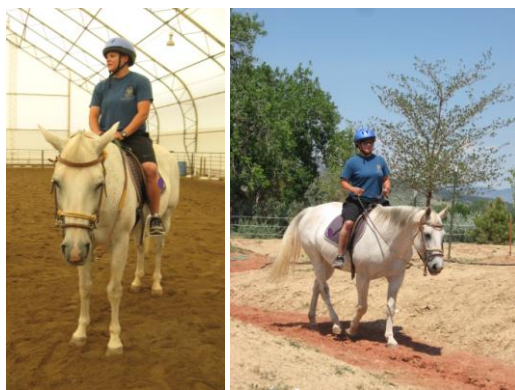


Figure 43. Jasmine and Fran. Riding in the arena and on the trail.

Gena. Gena (Figure 44, 45), a 24 year old female who served in the National Guard alongside her husband, now lived with him locally, raising their daughter and attending school. She had prior equine experience from working on a guest ranch in Montana, where she became "addicted" to horses. Gena participated in the women's EFP classes for Sessions II and III with fairly regular attendance, and was partnered with Bucky for Session I, and Bucky and Jasper for Session II. She also took the counselor up on her offer to ride Lola during Session I. Her goals were overcome personal issues and become more experienced and confident with horses.



Figure 44. Gena. Left to right: riding Bucky in the indoor arena; riding Bucky in the outdoor arena; riding Bucky on the trail; riding Jasper on the trail.

I was really nervous.
I don't do well with new people.
I sat in my car
20 minutes
before I even decided
yes, I was going to do it.

I wanted some time to myself.
Time to be about me.
Not about
taking care of the kids, the family.
Just me.
It feels good not to feel alone anymore.

I wanted to learn more
about the horse world.
I have loved horses since I was little.
Majestic.
Graceful.
Peaceful.
Beautiful.
So gentle and so loving,
but they have the attitude –
not afraid to stand up and
defend their herd, protect their young.

Friesians and American Mustangs.
 Those are my horses.
 Beautiful and amazing,
 a lot of history,
 independent,
 freedom and strength.
 They are what they are,
 and they don't ask anybody's permission.

Working with the animals,
 they know you're hurting and
 don't want you to hurt.

The horse is peaceful.
 Relaxed and peaceful.
 I borrow that
 peace and relaxation.
 Like a cycle – it mellows me out,
 so I can mellow the horse out, and then
 we work better together.

As soon as I started opening up and
 letting that peace flow
 from the horse to me and back,
 we started working together a lot better.

I don't know how to put it into words,
 From sitting on a horse to
 being a part of the horse.
 Feeling the muscles, the movement,
 the breath.
 I'm sure part of it is because
 our brain is working the same.

The grooming is very therapeutic,
 very repetitive, and Bucky is so soft.
 Touching him and leaning on him is
 very comforting.
 Even when he's being a brat.

Sometimes he doesn't want to be touched.
 It's his personality, and I
 wouldn't change that for the world.
 It wouldn't be fair if I got mad at him
 for being who he is.

I wasn't expecting the therapy part.
 That's actually become
 one of my favorite parts.

I tend to carry everything with me
 all the time.
 I can't let anything go anymore.
 The talking before we ride –
 I can get rid of emotional baggage
 before I get on the horse.

I talk
 and then I feel better.
 You can listen to others and be like, okay,
 I'm not the only one feeling this.
 It was really reassuring. Thank God.
 I'm not the only one. I'm not a freak.
 It feels good not to feel alone anymore.

I like the drill team exercises,
 it took me back to that team mentality
 in the Army.
 A connection. Camaraderie.
 Comfortable and safe.
 It felt right.
 I like having a job, a purpose,
 a goal to focus on.
 I am missing that on the civilian side.

My husband has said
 he will find a way
 so I'm able to be here every week,
 because he's seen so much difference,
 how I was before to how I am now.

I thought there was something wrong
 with me. I was not happy with myself.
 I didn't want to be around myself,
 around my parents,
 in a social environment, period.
 My marriage was starting to suffer.
 I put up barriers.

I never really thought about
 how I was acting or the reactions between
 my body and my brain.

I think [my self-awareness] is starting to progress.
I understand what I feel a little more.
I'm still not happy with it, but I'm accepting it,
I know what's happening now.
It's not that I'm broken.

I want to continue working on my connection with the horse, not putting walls up. That's helping in my personal life.

It's okay to feel the way I feel, let it flow instead of bottling it up.

There's days where I have to think about it, like going through the pre-flight check. I feel better when I leave. I relax easier. I feel more at peace.



Figure 45. Gena and Lola. Riding and petting Lola.

(Re)presentations: The Equines

Darla described the equines as "the heart and soul of this [the program]." Indeed, the equines and equine-human interactions are the foundation of such programs. It is therefore important to consider the experiences and well-being of the equines. Through photographs, volunteer observations, and field notes, I consider possible interpretations of the participating equines' experiences with the Veterans, presenting common patterns and a few specific case examples.

The center employed an equine manager, barn manager, assistant barn manager, and equine caretaker to oversee the care, activities, and well-being of each equine in the program. Certain standards are dictated by PATH Intl. related to the care and use of equines in EAATs, including a specific section dedicated to equine welfare and management. For example, grounds must be free of potential hazards to humans and equines (or potential hazards are blocked from access), equine living and turnout areas must be adequately large and in good condition (including access to fresh water and shelter), equipment (e.g., saddles) must be properly fitted to equine and participant, the center should maintain a schedule of regular health care (e.g., dental, hoof, general) for each equine, equines should work no more than three continuous hours and no more than six hours in a day (with more stringent hourly, daily, and weekly limitations for interactive vaulting and T-HPOT due to the additional stress on the equine), and properly trained professionals must oversee ground and mounted activities, including having a PATH Intl. Equine Specialist in Mental Health and Learning (ESMHL) present during mounted and unmounted EFP sessions to tend to the well-being of the equine (PATH Intl., 2014b). The center enacted additional policies such as feeding equines three times

daily to promote digestive health, providing turnout five days a week and providing "days off" for equines on certain days of the week and for two weeks between sessions for physical and mental well-being, regularly checking equipment fit, enforcing rider weight limits (accounting for balanced and unbalanced riders), providing special equipment such as blankets or fly masks when needed, offering training and education opportunities to center personnel, and continually evaluating equine behaviors and adapting activities and practices as necessary. Also in compliance with PATH Intl. standards, files were maintained for each equine including a biography and notes regarding screening for use in the program, lease agreements (if applicable), an updated list of approved equipment, usage by week and session, conditioning schedule and training notes, healthcare schedule and needs (dental care, hoof maintenance, vaccinations and worming, physical exams,), and notes about health and behavioral concerns, including incident reports of issues such as lameness, colic, biting, kicking, and other occurrences. Based on equine needs and preferences, all equines lived in a stall with attached run, or in a paddock with one or two other equines. Equines were turned out in groups based on complimentary personalities and special considerations (e.g., needing limited access to grass, limited turnout time) into one of the three large pastures, one smaller pasture and two paddocks. Finally, as the EFP model was fully integrated during Session II, the decision was made to have volunteers wait an hour into the class before preparing the equines. Initially, the volunteers began readying the equines closer to the start of the class; leading to the horses standing tied for an hour or more. Though providing an opportunity to practice equines' patience at the tie rail, it was unnecessary for the equines to have to stand and wait when they could be relaxing with access to shelter, water, and lunch.

Attention to the equines' needs and nonverbal communication cues was a core component of the Veterans' ground and mounted activities, requiring Veterans observe equines' behaviors and then interpret and relate what the equine was communicating. Again, during Veterans' first interaction with the equines, the focus was on equine communication and body language. Signs of tension/anxiety/alertness (raised head, wide eye, tense muscles, flared nostrils, blowing, flicking ears, raised or clamped tail), pain (constantly shifting weight or visibly unweighting limb, limping, gaping mouth, clamped tail, other signs of tension/irritation), displeasure/irritation/anger (tail swishing, pinning ears, biting, nipping, snaking neck, kicking, striking), curiosity/alertness (looking, blinking, pointing ears, normal breathing, balanced stance), and comfort/relaxation (closed or "soft" eye, relaxed hind leg, lowered head, relaxed "droopy" ears, relaxed lower lip, sighing, licking, chewing, yawning) were pointed out to the Veterans.

Generally, the equines at the center, including those in the Veterans' program, showed signs of being physically and psychologically healthy during and between classes. Equines seemed appropriately attentive, relaxed, and trusting during ground (Figures 46, 47) and mounted (Figure 48) activities. There were no reported incidences of being difficult to catch, with the exception of Jasper on his initial arrival at the center, and few specific cases of being resistant to grooming, tacking, mounting, and otherwise participating in program activities. In fact, a few of the horses lived in a paddock near the Veterans' check-in location, and I observed occasions where these equines came to the fence just opposite the group and relaxed there until caught for class. The Veterans enjoyed contributing to the equines' well-being, engaging in tasks such as grooming, carrot stretches, and massage, and choosing activities that were stimulating and enjoyable

for themselves and their equine partners, such as riding on the trail or introducing novel stimuli, and the equines genuinely seemed to enjoy the attention and activities as evidenced by their body language and engagement (Figure 49).



Figure 46. Joy. Calmly alert and then relaxing during massage.



Figure 47. Signs of relaxation: Ground activities. Top row, left to right: Ranger with head low, relaxed ears; Bubba with eyes closed; Patch shaking; Star with soft eye. Bottom row, left to right: Vinnie with relaxed posture; Jasper following with no lead, low head; Mischief laying down.



Figure 48. Signs of relaxation: Mounted activities. Top row, left to right: Patch with eyes closed; Nellie and Callie with lowered heads; Rosie licking. Middle row, left to right: Jasper with relaxed leg, Winston with lowered head. Bottom row, left to right: King with lowered head; Nellie checking in with rider with ears; Patch finding a frame, relaxed ears.



Figure 49. Equine engagement. Getting out on the trail and introducing novel activities like the big ball captured equines' and Veterans' attention.

As happy and well-adjusted as the equines participating in the program were, almost all exhibited signs of displeasure or discomfort at some point, often a byproduct of their interactions with humans, especially humans in the beginning stages of learning or relearning how to interact with and ride horses (though at other times due to factors such as nasty biting flies, adverse weather, stepping on a sharp rock just so, or being acutely aware that the food-mobile was dispensing lunch and they were not immediately on the receiving end). For example unbalanced riders, mixed signals (e.g., a rider pulling back on the reins for "whoa" while squeezing with the legs for "go"), and persistent applications of pressure (e.g., continuing to pull back on the reins once the equine has stopped, rather than releasing the pressure by adding slack to the rein) are sources of stress stemming directly from human contact, as well as human-imposed creations such

as box stalls (restricting movement), twice-daily feedings (versus access to continuous foraging), and a variety of other potential sources of stress. Even human energies and emotions can be a source of stress for equines (Goodwin, 1999; Keeling, Jonare, & Lanneborn, 2009). Consequent behaviors might include signs of tension and irritation noted above, such as ear pinning, tail swishing, pawing, stomping, kicking, bobbing or swinging the head, nipping, and muscle tension.

Within the context of the Veterans' program, there were instances of stress behaviors related to both external stimuli and related directly to the Veterans. In terms of external stimuli, Star, Vinnie, and Maggie would pin their ears toward certain other horses (Figure 50). Jasper was anxious about large, long-haired sheep on a neighbor's property, raising his head with wide eyes and flared nostrils, and freezing to watch the sheep. Bucky, at one point, spooked from something in the indoor arena, raising his head, flicking his ears backward, clenching muscles in his hindquarters as he sprang forward away from the perceived danger. Star illustrates a similar response in Figure 51, alert to his surroundings with raised head, widened eyes, flared nostrils, and ears fixed on the potential threat, suppressing the flight response but prepared for such if deemed necessary. In this figure, Star also illustrates that, in most of these situations, the behaviors were brief, with the equines quickly returning to normal behaviors, engaging with the Veteran in the class activities with minimal intervention on the part of the Veteran, volunteers, or instructors other than redirecting the equine's focus and reassuring the equine that they need not be concerned with the stimulus (as Jennifer explained, "I'm going to take care of you and it's okay...it's all good").



Figure 50. Ear pinning. Vinnie (right, facing away from camera) pinning ears at Lola; Maggie pinning ears as Lola passes.



Figure 51. Tension and relaxation. Star expresses anxiety, then relaxes as the rider strokes his crest.

In terms of human-related behaviors, many signs of tension, or at least increasing concentration, often seemed related to the equine adjusting to and attempting to understand the Veteran. For example, Figure 52 compares Callie being ridden by an experienced rider with Callie being ridden by a less experienced rider. With the more experienced rider, Callie seems to be moving forward with less tension, a soft eye, and one ear on the rider and one ear forward. With the less experience rider, Callie's attentions are focused on the rider, as indicated by having both ears turned backward, and she has more tension in her body, with her head and neck raised and tail perhaps somewhat clamped. However, she does not appear to be in acute distress.



Figure 52. Tension with a less experienced rider. Callie, first with an instructor riding (first image), then adjusting to a less experienced rider (images two and three), evidenced by increased muscle tension and both ears being fixed on the new rider.

Similarly, Lola expressed signs of concentration as she adjusted to new riders. Figure 53 illustrates escalating muscle tension in her upper lip as it becomes increasingly pointed.

Note that her ears are also increasingly fixed on the rider.



Figure 53. Tension in the upper lip. The first two pictures show Lola relatively relaxed in the mouth and ears. As the pictures progress, tension in the upper lip becomes more apparent, and the ears become progressively fixed on the rider.

Figures 54 and 55 demonstrate Joy adjusting and her rider attempting to adjust to one another, with changes in Joy's self carriage and topline, and adjustments in the rider's hand, leg and seat. Following this exercise, I also noticed Joy stretching her neck, likely to relax her muscles, and opening her mouth and sticking out her tongue, as though adjusting to the bit in her mouth. This might suggest the need to adjust of the position of the bit or a possible source of oral irritation, such as a sharp tooth. However, given the lowered head, relaxed musculature, closed eye, and relaxed ears, Joy also did not appear to be in distress.



Figure 54. Looking for balance. Joy experimenting with her self-carriage, as the rider experiments with hand, leg, and seat position.



Figure 55. Playing with the bit and stretching. Joy mouths the bit, but has an otherwise relaxed expression.

Similar to the quick adjustments to external stimuli, the equines seemed to quickly settle with their Veteran partners with minor adjustments, often under the

guidance of the instructor and counselor, to help the Veterans meet the equines' needs. For example, a relatively natural human response is to use the reins for balance and security, often leading to choking up on the reins and neglecting to relax the hold even at rest. This can confuse an equine, who learns well from negative reinforcement, or a release of pressure. The series of photographs in Figure 56 shows Bucky's attempts to adjust to his rider's hold on the reins, seeking a release of pressure to indicate the desired self-carriage and headset. As the rider goes from a loose rein to making contact, Bucky begins to experiment with his position. However, failure to provide the equine with feedback (the release of pressure) can result in a tense equine, as is evident in the final photograph of the series, with Bucky's head up and ears fixed on the rider, still seeking an answer to his question. Figure 57 illustrates the change in Nellie as the rider simply relaxes their hold on the reins. Nellie visibly braced or tensed up with a shorter rein, lifting her head and neck, pointing her ears back, and pushing against the bit. With a longer reign (and lower, softer hand on the part of the rider), Nellie would relax her neck muscles, ears, and facial expression, and engage with the task at hand.



Figure 56. Looking for release. The rider begins on a loose rein (upper left), then begins shortening the reins, taking up contact (upper middle). The following photos illustrate Bucky adjusting his position, searching for the desired response; he did not receive feedback through a release of pressure, and therefore did not understand what the rider was looking for. This can result in bracing and leaning on or pushing against the bit.



Figure 57. Pulling on the bit. Nellie first braces against bit (upper left), then relaxes (upper right) with longer rein and relaxation of the rider's arm. At rest, Nellie is again pulling on the bit (lower left); she relaxes as the rider releases the rein (lower right).

As noted in the review of literature, such behaviors, though often perceived as deviant, are actually quite normal and even adaptive equine responses to abnormal, human-created situations (Cooper & Albentosa, 2003; Hothersall & Casey, 2012; Nicol, 1999b). Comparably, the counselor introduced to the Veterans to the thought that their responses are also normal responses to abnormal situations. If the source of the discomfort or displeasure was identified and effectively addressed, the behaviors subsided; again, in none of the above cases were the equines acutely distressed – there was a period of adjustment to novel stimuli, requiring extra attention and energy from the equines to adjust and adapt to the Veterans, and extra attention and energy from the Veterans to address the equines' needs. As this partnership developed, the equines and

Veterans settled, with the equines adjusting attention back and forth between the Veteran and the environment or activity (Figure 58), and demonstrating signs of engagement and relaxation noted above.



Figure 58. Adjusting attention. As indicated by ear position, Star checks in with Darla (upper left), then turns his attention forward (upper right). King demonstrates the same, checking in with Josh (lower left) and the turning his attention forward (lower right). Also note the horses' neutral head and neck position, soft eye, and relaxed musculature, as well as riders' relaxed body position, relaxed hands and arms, and long rein, suggesting horse and rider are comfortable.

Should the source of possible distress go unaddressed, or the management strategy consistently involve suppression through dominance and punishment, there may be negative consequences; the equine might develop alternate behaviors, even stereotypies, might become disengaged and unresponsive, in essence giving up, or, these behaviors can escalate (Hothersall & Casey, 2012). In three particular cases with equines in the Veterans' program, minor behavioral issues escalated over time. In two cases

(Vinnie and King), behaviors were effectively managed, and a potential root was identified and addressed. In another case (Star), the equine was ultimately released (sent home) due to the center's inability to meet his needs.

As noted in the equine profiles, Vinnie was a naturally mouthy horse – he liked to experience his world through his mouth, which made it difficult to determine if he was being playful and curious or expressing displeasure when he would nip. At times, he would bite his lead rope or the tie rail, and eventually nipped at humans in the vicinity (Figure 59), making contact with a volunteer and with Tyler at least once each, and coming close to making contact with the counselor. Associated behaviors typically included tail swishing, ear pinning, and bobbing and swinging his head. Tyler became very adept at preventing or dodging attempts. It seemed grooming his barrel and flanks and mounting were triggers. He also clearly did not care for Libra on her initial arrival, frequently pinning his ears in her presence. At one point, the counselor, mounted on Lola, was working with Tyler, mounted on Vinnie, in the center of the indoor arena; Vinnie, agitated with Lola, pinned his ears, squealed and swung his hindquarters toward Lola as though to kick. The horse leader and counselor were able to control the situation, and it actually provided an opportunity for Tyler to notice his own reaction behaviors (e.g., fast breathing, tense right shoulder and wrist – "it's the gun") and practice de-escalating his anxiety. He reflected his anxiety reached "15" on a scale of 1 to 10, but quickly brought it back to a "1" through breathing and reconnecting with Vinnie under the guidance of the counselor, noting this recovery could typically take hours, days, or even months at home on his own. He also observed Vinnie "came down," too, chewing and digesting. Additionally, this interaction provided Mary with an opportunity to reflect on the power

of being mindful and present; at the time of this incident, Mary was mounted on Joy, and I was leading the two of them around the perimeter of the arena as Mary closed her eyes and focused on her breathing and Joy's movements. During the commotion between Vinnie and Lola, neither Joy nor Mary even flinched. Regardless, the counselor did make sure to follow up with Vinnie, working to familiarize him with Lola and eliminate this potentially dangerous behavior. The equine manager also explored what might be contributing to Vinnie's sensitivity and nipping, experimenting with his diet, feeding intervals, workload/free time, and handling, and having the veterinarian examine him. Eventually, Vinnie's workload was adapted and lightened so he was participating in fewer EFL classes, he was put on dietary supplements, and he was fed snacks of grass hay prior to classes.



Figure 59. Vinnie nipping. Volunteer holding Vinnie's head to prevent nipping (left); Vinnie reaching for Tyler's foot (right).

King exhibited signs of irritation associated with mounting, particularly tension in his back and neck muscles and ear pinning, which began very mild but continued to worsen over the eight-week first session, and there were reports of similar behaviors in King's other classes. He was becoming resistant to lifting his left front hoof, being saddled, and movements like bending through the ribcage for turns. King's behaviors

included pinning his ears, swishing his tail, biting his lead rope, and swinging his head toward individuals perceived to be a threat (e.g., the person tightening his girth. The volunteer and I both noted King seeming "sore, stiff, cranky." King also preferred independent riders, showing similar behaviors when he felt his personal space was being infringed on by horse leaders and sidewalkers (Figure 60). This response might have been King feeling claustrophobic having too many humans in his space, and he might have been receiving too many or conflicting signals from the rider and those on the ground. In consultation with a veterinarian, a plan to help resolve King's source of pain and related behavioral issues was developed, including massage, chiropractic work, stretching, physical therapy and conditioning, and nutritional supplements, in conjunction with a break from mounted classes during Session II followed by lighter workload and reduced weight limits when he returned to classes. At that time, King was partnered with independent riders, or a specific volunteer who shared a close relationship with King.



Figure 60. King showing signs of tension. King shows mild signs of tension in his posture during mounting (left), and in response to a horse leader (out of frame on the right) getting too close.

Star began exhibiting behavioral issues prior to the start of data collection. He seemed comfortable and affectionate toward humans, but did not interact well with other horses in group classes. If other horses even looked at him crosswise pinned his ears and

likely would have lunged at them biting or kicking if left to his own devices. He grew irritated if stalled next to another equine, pinning his ears, pacing, swing his head or lunging toward the other equines. It was difficult to determine the root of these behaviors. Issues of health and tack fit and diet were explored, and his classes and workload/free-time balance were experimented with to try and find the ideal fit. Staff attempted to handle him as consistently as possible, and paired him with strong horse-leaders. The center sought input from other trainers, and the owner took him to a Buck Brannaman clinic, where he expressed these behaviors initially, but they quickly dissipated despite being in an unfamiliar environment with at least nineteen other horses. This, in conjunction with Star's tendency toward fearful reactions, suggested Star might have needed more consistency and stronger leadership in order to feel secure; in lacking these, he was feeling the need to protect himself. The clinic, though seemingly chaotic, provided a structured environment where he was with a confident rider and expectations were clear. Unfortunately, following the clinic, the behaviors quickly returned and the center did not have the resources to meet Star's needs, resulting in the decision to send him home to his owner at the end of Session I. Darla was upset to lose Star, but also concerned regarding his well being, having noticed many of these negative behaviors, and even worrying that she was contributing. In that regard, she was happy to see him go, and was invited by the owner to visit him at his new boarding location. Darla and I met at this location for Darla's interview following Session II, and Star did seem happier and more relaxed. It was encouraging even to see him living in a stall and run between two other horses with no signs of his prior behavior.

These cases, as well as the cases in which the equines such as Winston seemed physically and psychologically well-fit for the Veterans' program, support that equines must be recognized as unique individuals whose preference for and performance in different capacities will vary. It is equally important to note that these are generalizations of equine behaviors and cues; as with humans, individual equines will develop unique expressions. What looks like a sign of anxiety and tension in one might be a sign of concentration in another, such as my interpretation of Lola's pointed upper lip, akin to a person furrowing their brow. Sometimes a cocked hind leg is not actually at rest – the equine could be holding quite a lot of tension in the muscles. An expression of pinned ears might have signaled discomfort at one point, but became an unconscious habit. Therefore, it is most important that the humans working with the equines—facility staff, volunteers, and veterans—become familiar with the equines in order to more accurately interpret behaviors be better prepared to address atypical behaviors.

CHAPTER VI
COMPOSITE DEPICTION AND
CREATIVE SYNTHESIS

The very feeling which has seemed to me most private, most personal, and hence most incomprehensible by others, has turned out to be an expression for which there is a resonance in many other people. (Rogers, as in Kirschenbaum & Henderson, 1990, p. 27; Figure 61)



Figure 61. Shared expression. Left to right: Thomas and Karen; Star and Darla; Bubba and Jasmine; Winston and Matt.

The instructor explains the "rules" of the exercise to the two Veterans. Each is handed a 5 gallon bucket filled with sand, and one of the two lead ropes attached to Lola's halter. Once they lead Lola through the gate, they are no longer allowed to use their voices to communicate with each other. One on each side of the luminous black Lola, they walk through the parking lot toward the trail, Mike with a long loop in the lead, Darla holding hers shorter and tighter. Before embarking on the trail, Darla gestures to Mike to stop. With Mike and Lola watching, she hands her lead rope to Mike, walks to a post at the start of the trail, pours the sand from her bucket and sets the bucket on the ground. She returns, taking back her own lead rope as well as Mike's, giving Mike

his opportunity to follow suit, pouring the sand from his bucket and setting it on the ground with Darla's. He takes his lead rope, and the three resume their journey on the trail, free of the buckets' extra weight and hassle.

As they navigate the obstacles at the beginning of the course, Darla seems to want to move in a straight line, where Mike's tendency is to weave and turn and circle. They silently smile at each other and come to an agreement, Darla often following Mike's lead and frequently stroking Lola's sleek coat. When Darla breaks into a trot with Lola, Mike follows. Further down the trail, Lola spooks. Not a big spook, but her energy rises with her head, accentuating her size and power. She stops and looks to the trees. Darla and Mike stop with her and stroke her arched neck. As they proceed, Darla continues to stroke her neck while Mike walks ahead. Weaving their way through the serpentine hills, Lola again seems anxious; Mike moves to again walk ahead, but Darla puts out a hand to Lola's chest, signaling a pause, taking just a moment to regroup and stroke Lola's neck before walking on together. As the trio passes back through the beginning of the trail, Darla and Mike pick up each other's empty buckets to carry back. (Figure 62)

Following the exercise, Darla and Mike finish grooming their usual equine partners, Star and Winston, and mount up for a brief bareback ride. We head out on the trail, reflecting on Darla and Mike's walk with Lola. Mike notes Darla's initiative to dump the sand and leave the buckets at the beginning of the trail, remarking they don't need to carry [extra] stuff, they have enough. Darla agrees, "I don't have anything to prove. I would like to enjoy this walk." The stuff needs to be left at the [door]. As the wind comes up, the ride finishes in the covered arena. The five of us – the counselor, Darla on Star, me, the riding instructor, and Mike on Winston – circle up in the corner

on the gate. The counselor asks about their different approaches to the obstacles. Mike likes the ins-and-outs and takes comfort in making things complicated, exercising [perhaps occupying?] his brain. Darla runs circles in her mind, imagining things 10 steps down the road, so "when I can just go straight, I try to." They felt give-and-take, though, while walking Lola together.

The counselor asks about their roles in the exercise, observing that Mike seemed to be the "shower" and tended to walk ahead while Darla seemed the "petter," staying mostly by Lola's shoulder. Darla felt safer next to the horse – having been nipped in the butt leading a horse too far ahead – and didn't think about leading so much as a journey together. She acknowledges deferring to Mike, felt comfortable doing so, but wonders if she should have taken charge. She doesn't want to feel weak, is tired of taking charge – feels vulnerable, a doormat – it's hard to know what role to take. Mike relates that in uncertainty and seclusion, one is setting self up to get hurt. Like a single mom, you can do it, but why would you want to? Men and women can't do it alone – side-by-side work through obstacles together.

During much of this, there is also a silent tug-of-war between Mike and Winston. Mike continues to choke up on the reins, despite our standing still. Winston grows restless, pawing and wanting to walk, prompting Mike to shorten the reins further, and Winston to quietly protest even more, until the instructor interrupts and asks Mike to relax the reins as long as we are standing still. Eventually, Mike dismounts, and Winston shakes his head and body and tries to rub his face. Star was quiet for the whole conversation, mirroring Darla's relaxed posture and looped rein, only occasionally pinning his ears in response to Winston moving too close.



Figure 62. Darla, Mike, and Lola on the trail. Darla and Mike approach the trail (top left), pausing to dump the sand from their buckets (top middle, top right). They leave their buckets at the trail entrance (bottom left) before leading Lola through the obstacles together (bottom middle, bottom right).

Meaning-Making: The Shared Experience

Shared Motivations

Before even participating in the program, the Veterans shared some common motivations for being there, as well as goals and desired outcomes. Each Veteran wanted help in their recovery, and the primary challenges resonating among all were trust and connecting (or re-connecting) with themselves and others. So Veterans wanted to participate in this program to "help with trust issues and to interact" (Josh), "learn to trust others more...hopefully learn to feel more comfortable in my own skin" (Jennifer), "become more comfortable around horses and people...I have a hard time trusting myself" (Darla), and to "gain more confidence, trust, and learn how to relax" (Jasmine).

Just to have someone listen meant a lot. These motivations to find trust and connection also surfaced when asked what they were looking forward to about the experience:

"developing a core network of women I can trust and enjoy" (Mary), "connecting with the other ladies" (Jennifer), and "gain[ing] experience and opening up to people, connecting with other Veterans that are in the same situations" (Mike).

In addition to developing trust and connecting, several of the Veterans wanted to get back to normal, or find what Matt referred to as the "new normal," to develop physically, cognitively, emotionally, and socially, and to relax. "[I expect to] reduce stress and increase confidence...increase physical strength, especially core" (Mary); "I hope that this experience will help with my PTSD and high anxiety...I go out there so I can be a better person" (Tyler); "I'm hoping to gain confidence and coping skills to deal with anger outbursts...I think it will sharpen the mind, relax the physical pain, and bring out an array of emotions" (Mike); "I would like to gain more confidence, trust, and learn how to relax. I hope this program will allow me to effectively function in society" (Jasmine). This experience promised to address these issues through challenge, "I think this program would be mentally and emotionally draining" (Jasmine), "It's challenging to face my fears but I have to keep trying" (Darla).

Finally, the equines, themselves, presented a common motivating factor. Not all Veterans had prior equine experience, and not all shared the same level of passion for horses, but all identified the equines as something different, and this novelty attracted them. The equines were different from the tired approach of medication and traditional counseling and therapy that many perceived to be ineffective, or at least unsustainable. Tyler didn't know what to expect with the equines, but "decided to participate in this

program because I wanted to something other than pills ([from the] VA) or alcohol to help with my current issues." Darla and Jasmine similarly began with no expectations, wanting an alternative to traditional office therapy, and, as self-proclaimed animal lovers, to see what this approach might contribute to their recovery. Russ and Mike agreed,

After 15 years of non-stop therapy ranging from weekly to monthly, it has become mundane and I walk away with a sense of nothing being accomplished. I have read a lot about these types of programs and my goal was to be able to find more release...that the previous 15 years haven't been able to help with. (Russ)

[I was] interested in horses and what that might bring to my process of healing...It has been my experience and understanding that horses are a powerful tool when dealing with mental and physical issues...I expected to get help in these areas more than I had from medication and voice [talk] therapy. (Mike)

A Holistic Experience

A feature of EAATs is the inevitability of connection, and therefore shared experiences between the equines, the personnel, and the other participants (in this case, Veterans) (Figure 63). As additional Veterans and equines join the group, the layers of (possible) connections and shared experiences multiplies (Figure 64). These models should be considered fluid, with certain entities and connections playing more or less prominent roles at any given time and from any individual perspective. In the case presented above, for instance, the model likely began as a triad between Lola, Darla, and Mike, then shifting to incorporate Star, Winston, the instructor, the counselor, and me (Figure 65). From Darla's perspective, Winston might have played a less important role – a smaller bubble; from Mike's perspective, Star might have played the less important role. I might have played a particularly small role to all others involved as I tried to remain in the background, taking pictures and writing notes. Nonetheless, our essences and energies all came to overlap for that period of time, thus influencing individual experiences and meaning-making.

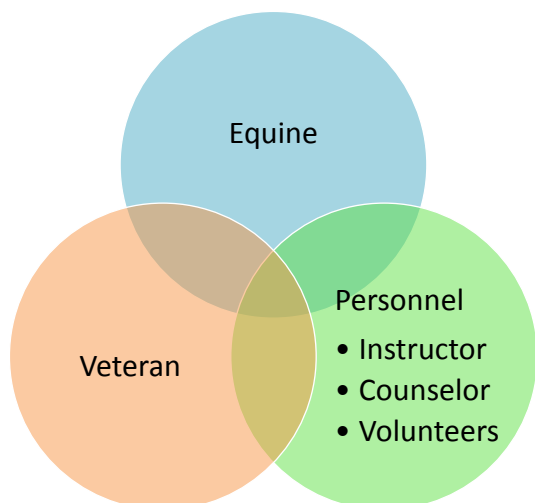


Figure 63. EAAT basic interaction model.

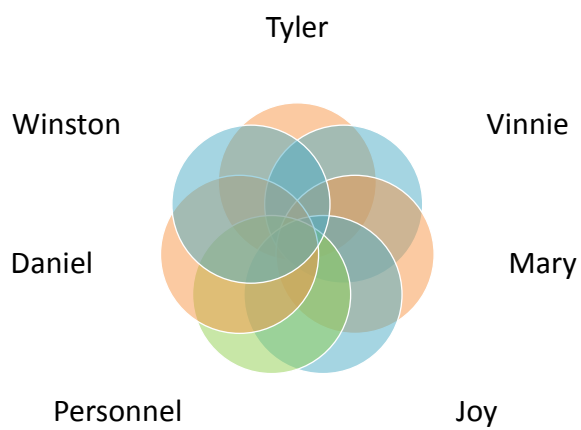


Figure 64. EAAT-facilitated interactions of increasing complexity (based on Session I EAL group).

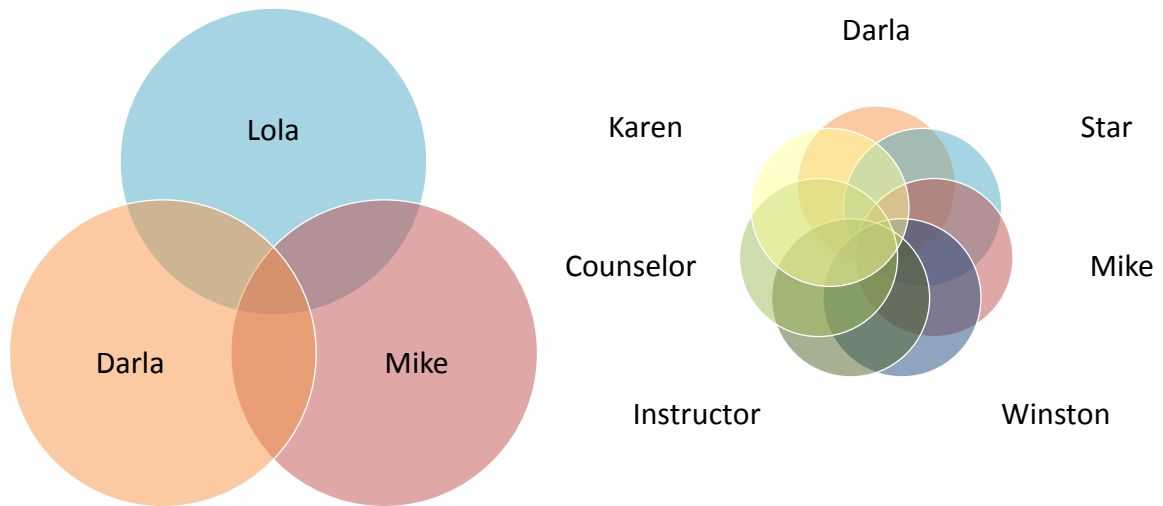


Figure 65. Shifting Interaction Models. Interaction model for activity with Darla, Mike, and Lola (left), followed by model for the remainder of the class, incorporating Star, Winston, the instructor, counselor, and researcher (right).

The Veterans confirmed this, indicating through interviews and survey responses that the power of the experience came not from any single element, but from the whole of the experience. It was not about just the equines, the physical environment, the staff and volunteers, or the opportunity to connect with other Veterans; the power of the experience came from the combination of these elements. As Daniel explained:

I think it's the whole package. The horses were like the cap, the thing that put it over the top...I got to meet other Veterans, learn about PTSD, learn about myself a little bit, meet a bunch of cool volunteers...I probably benefited more from the counseling. (Daniel)

Darla also observed, "the extensive community that's out here...comes from the horses but it's also the people that are out here," and for Russ, "the most enjoyable and helpful part of this experience was actually the instructors...The horses are great, but...if you have crappy instructors and PATH people, it doesn't matter how great your horses are." Similar sentiments were reflected by each of the other Veterans, observing the

contributions of the equines, the Veterans, the personnel, and the overall environment to their experience in the program.

Centrality of Equines

Though the Veterans valued the experience of the program as a whole, the equines presented the unique element – the "heart and soul" (Darla) of the program. Given the complexities of overlapping and fluctuating connections, in conjunction with my observation time with the equines was sometimes limited to 20 or 30 minutes (and sometimes required that the session run long to have even that much time) in the EFP classes, I wondered about the centrality of the equines to Veterans' experiences. The centrality of the equines to the experience seemed to range from the equine playing the central role in a Veteran's participation and experience to the equine providing the initial impetus, but continued participation really becoming more about the counseling, the human social interactions, and the sense of purpose – having structured tasks and activities, and something to get out of the house to do every week.

As noted, equines served as the primary draw for all, initially attracting the Veteran's to consider the program, especially compared to traditional rehabilitative approaches:

I have only done therapy in an office setting and...I didn't feel like it was getting me very far. ... I thought I will give [this] a chance and see how it would be able to help me instead of sitting in the office and talking with someone for a half hour. ... The horses are just so calming, they just bring a different aspect to things (Jasmine).

Daniel confirmed the appeal of the equines while also confirming other professionals' concerns that marketing EAAT and EFP as therapy will potentially prevent Veterans from participating:

I think everyone respects horses and has seen movies and has been on a trail ride or something to that effect – or wants to. So if we can encourage people to ride and there is a therapist there, too, but not promote it as such. But you'll get to learn about horses and riding and how they're just like us and it's like, "Oh, yeah, that's cool, horses are cool" – I think everyone likes horses...if you said, "Hey, do you want to hang out in the barn with a couple of other Veterans and a therapist?" I'll be like, "No." (Daniel)

Once on-site, the equines continued to be a vital aspect of the program for all Veterans, keeping them coming back from week-to-week and session-to-session. However, the equine, while still important, was joined by other woven into the fabric of the experience such as the environment, the connections with personnel and other Veterans, and the counseling – components that Veterans might not have anticipated, but greatly impacted their experience. For example, Gena

wasn't really expecting the therapy part of it, and I think that's actually become one of my favorite parts...doing it in a group setting where...you can listen to [other Veterans'] experiences and be like, "okay, I'm not the only one feeling this." (Gena)

Matt clearly enjoyed riding and was attentive to the well-being of his equine partners during classes, very affectionate toward them and expressing concern about Tyson's lameness and the flies biting Stan. During our interview, however, Matt focused more on the experience of purpose and social interactions:

My main goal was...just to get out of the house, give me kind of a schedule, something to look forward every week...I don't really have the PTSD stuff a lot of the guys are dealing with...it was more just giving me something to do and the sense of purpose...and if I gained anything from it, it would be just a bonus. Plus it's nice being out talking to military people again and just BS-ing. (Matt)

Because he participated in both the EFL and EFP classes, Daniel illustrated a clear shift in his perspective of the experience. At the start of Session I, Daniel mentioned looking forward to meeting other Veterans and gaining first-hand experience in order to

recruit other Veterans for similar programs, but his primary focus was on the horse and developing horsemanship skills:

building a relationship with such a huge animal. I think it will be a huge stress relief, just the horse and I. ... learning about horses, starting a new challenge, and being fairly successful at it [riding]. ... I liked the riding the best, and I like the other Veterans, but we talked before and after, too. (Daniel)

The volunteer partnered Daniel for Session I observed that he "would rather be riding, not talking. His whole body language changes [during] talk about metaphors and 'life' things. He tunes out..." With Session II, and the shift to the EFP model, the equines were still "the thing that put it over the top," but Daniel also spoke more to the human connections than he had before, and noted "I could totally see the horse aspect would mean much more to [some of the other riders]...I probably benefited more from the counseling, and the horses were just an awesome skill and fun." In this sense, the equine experience was no less valuable, but was one part of the "whole package" (Daniel), with the environment, personnel, and especially the other Veterans and the counseling contributing equally or more than the equines to help Daniel "more than I thought I needed it. So thank you!"

For other Veterans, the equines were and remained the primary reason for being there – not because they were novel, but because they were equines, and the Veterans looked forward to "bonding with the horse" (Josh), "bonding with a horse who can sense my feelings, who will help me through these problems and become a better person" (Tyler). Tyler appreciated the company of other Veterans, but given the choice, would probably have elected to hold all activities in the company of the horses. During Sessions II and III, when Tyler began participating in the EFP classes, he would sometimes appear distracted, uninterested, or even fidgety and agitated during the sit-down check-ins. A volunteer noted he was extremely agitated after a particularly long check-in session. For

Tyler, this day and this experience was primarily about spending time with "his" horse. He began coming early to spend time with Vinnie and then Callie prior to class. When I asked his feelings about the class structure during our interview between Sessions II and III, he explained, "I don't mind it [sitting and talking before riding], but I just really...if I could spend all day just being on the ground with the horses...I would be okay with it."

He elaborated:

I'll be the ears that [a Veteran's] words need to fall upon, but...we're here to ride horses. Let's get on the horses and talk about issues. ... 'cause the longer you have to be one with the horse...I feel like that's an important step for me, is connecting. That whole time with the horse is huge. Especially a horse like Vinnie...when I do get out there [early], I think he appreciates it, cause it's better than just grabbing him out of the stall and saying, "All right...I'm going to go clean you and then I'm gonna' ride you and then I'm going to put you away. I feel like that's what people do to me in life. (Tyler)

Through comments such as these, Tyler emphasizes the centrality of the equine and his perceived relationship with the equine to his experience. He also demonstrates consideration and compassion for equines – especially Vinnie – along with recognizing equines as having unique personalities, expressions, behaviors, likes and dislikes, and other characteristics. During classes, Tyler frequently touched, talked to, and otherwise interacted with Vinnie and Callie, less concerned about what the other Veterans were doing. This was true for Josh, as well; as the only Veteran in his class for Session I, there was not the opportunity to connect with other Veterans in the same way, but even his interactions with the instructor and volunteers, though positive, were limited. Josh seemed to prefer the company of King, focusing his attention on King and his attitude, behaviors, and characteristics, frequently stroking him, checking in with him visually, and talking to him, "good boy," "look, you already messed up your hair."

Both Darla and Jennifer found value in all aspects of the program, appreciating the instructors, the volunteers, the counseling, and the opportunity to connect with the other Veterans as much as the time with the equines. As Darla described, "let's not kid ourselves, we're not out here to learn how to ride horses. We're out here to get you familiar with horses enough so that you can have them be this great tool that helps you get to a better place mentally, emotionally." Regardless, both were attracted to horses prior to beginning the program, and were very attentive to and considerate of the equines, to the point that their concern for the equines impacted their experience of the program, Darla in Session I with Star and Jennifer more so in Session III with Mischief. I briefly described Star's experience in the last chapter, but did not go into too much detail regarding the impact on Darla's experience. For Darla, Star's experience brought the program and her involvement in question. Darla sometimes wondered if she caused, or at least contributed to, Star's insecurities. This concern extended to the other equines: "I still worry a lot about the horses. A lot. It makes me really sad to think that they're only able to do this for so long before they burn out." In turn, she began to question if she wanted to continue in the program, or share the horses' energy with individuals who needed it more than she did:

How do I compare my experience with a kid that has cerebral palsy or MS? It's like, who needs this the most? ... I come out here and I see the horses and how – in my opinion – that they are kind of being stretched a little thin – all of that kind of is in the background for me and it's made it tough to keep coming out here.
(Darla)

Similar to Tyler's personal experiences coloring his consideration for Vinnie, Darla related some of her concern for the equines to her military experiences:

I think of the horses like Bubba, where they're just a saint and they help people so much. How much is Bubba going to get used before he doesn't have anything left? Because it's like that in the military, too. Like, when you step up and you show

that you're capable, and you can go above and beyond and you're not just doing the minimum to get by...you get more and more stuff stacked on you until you break. And I know that that's what happened to me. (Darla)

In the end, Darla did decide to continue with the program, but expressed:

I'm really disappointed that Star won't be around anymore even though I understand why. ... It would be great to see more horses come to [the program] so that the burden is made lighter for all the horses involved. Hopefully if the horses are used minimally and consistently with familiar people they won't 'burn out' like I think Star did. (Darla)

Mischief began to exhibit less than desirable behaviors at the center which I will generalize as trouble taking direction and challenging authority. At one point, he quite literally dragged Jennifer while she was leading him to the outdoor arena, attracted to the green grass growing by the round pen. At a different time, when she was there for standard riding lessons, he had again dragged her in pursuit of grass, and she had become trapped between Mischief and a panel (fence). When she asked him to move over by applying pressure with her fingers, kicked at her with his hind legs, not making contact, but scaring Jennifer. It got to the point that only staff were allowed to handle him, or directly supervise any handling. Jennifer was concerned that he would develop a bad reputation, "I love him, I don't want him to have a criminal record," and even more concerned about the root of the behaviors, worrying that because he was a smart and playful horse, he might have been bored, acting out due to lack of stimulation, or feeling like he had no connection and source of clear leadership. This became a central concern for Jennifer. She was in tears during one class, reporting that Mischief was "not behaving well," seeming depressed and apathetic when not acting out, and would potentially leave the center for a year to be trained in driving or a different discipline that he enjoyed more; she felt like "I did it" and relating to him: "it [hurts] to see him this way 'cause that's how I get." The counselor reframed, reminding that not every horse is a good fit for a program

like this, and encouraged Jennifer to consider Mischief's purpose on her life, rather than her purpose in his life. Darla was able to relate this to her experience with Star, reflecting that he had never been happier than where he was now. She wanted to spend much of her time working on her connection with him and engaging in activities that he might enjoy, such as going on the trail, and it was her idea to break out the big ball.

Why the Horse? Equines' Roles

Despite the varying centrality of the equines' to the Veterans' experiences, it was clear that the equines played important roles in each Veteran's experience. This began by simply connecting with the equines, learning about equine communication and basic handling, grooming, massaging and stretching, joining up in the round pen – getting to know them, noticing their behaviors and personalities. This enabled the Veterans to begin noticing signs of relaxation and tension in the equines, thereby also noticing their own actions, reactions, and states of being.

At certain points, such as grooming, during the breathe-with activity, or when discussing the pre-flight check, all Veterans were asked to observe or "tune in" to their equine partners' behaviors, not looking for anything in particular, just noticing. At other times, specific behaviors were addressed as they arose. For example, it became evident that Nellie did not care for the curry comb, swishing her tail, pinning her ears, and swinging her body from side to side to escape the unpleasant sensation. Mike initially seemed unfazed, if not unaware, so the counselor took the opportunity to reflect on this behavior with Mike and discuss strategies for working with Nellie, beginning with being attentive to the behaviors and identifying what might be causing it. Similarly, Jasper's resistance to being caught and habit of putting his head up in the air for haltering (Figure

66) and putting on the sidepull or bridle provided an opportunity for Daniel to assist in Jasper's training, thereby also becoming aware of his own energy and developing his patience. The most effective way to work with Jasper was for Daniel to keep his energy low, breathe, clear his mind of the task or end-goal, approach as though he had all the time in the world, and reward Jasper's progress, even dropping his head just an inch.



Figure 66. Jasper raises head while haltered.

In this way, awareness and connectedness with the equines formed the foundation for the experience, and contributed to the Veterans' learning and development. Beyond learning about equines, horsemanship, and riding, the equines contributed to Veterans' personal development and their connections with others by filling a number of roles, including that of anchor, partner, mirror, security, power, and providing purpose and sense of self.

Anchors. First, the equines provided a concrete anchor to remain mindful and present, focusing on the equines' immediate cues and the tasks at hand rather than ruminating on the past or thinking forward to the rest of the day or week. Gena noticed "if I even stopped thinking for a moment what I was doing with [Bucky], he started trying to do his own thing," and Russ cautioned, "you have to constantly respect them, and although not be paranoid of something happening, you have to keep aware." Russ also

noticed that "I could feel Harley fill up those big lungs and just release a big ol' puff of air. Suddenly I would find myself remembering to breathe. ... I can feel my heart rate slow down and the feeling of relaxation."

The equines provided a very physical sense of connecting and anchoring through the grooming, riding, and even stroking them, which the Veterans did frequently (Figure 67), even unconscious petting as they processed other information. Jennifer and Mike bareback riding particularly grounding, and Jennifer envisioned literally grounding herself, stomping her feet and exhaling, in order to connect with Lola. The counselor encouraged Veterans to identify a "marker feeling" with the horse, engraining the feeling and then practicing finding it away from horse. Mike practiced this with the help of a physical "marker" – a lock of King's hair – to keep him grounded even off-site, noting "that helps a lot; I grab hold of that when I'm getting angry and kind of play with it and that seems to help a lot, just to bring me back in those moments."

Partners. Second, the equine became a partner. Veterans acknowledged equines as unique individuals with "personalities," "almost on the same wavelength that we are" (Daniel), leading them to consider the equines as a partner with whom they shared a working relationship. With this, the Veterans were interested in learning to communicate with the equines in ways that made sense to the equines; "[horses] don't respond well to force...being physically touched or hit or yelled at. They don't respond to that. They want confidence and control and they want you to use power and not force" (Mike). "Harley has allowed me to learn that I have to work together in order to get things done. I can't just wish my will upon him and expect things to happen" (Russ). "Whisper is the [horse] language" (Daniel).



Figure 67. Stroking the equines.

In establishing this partnership, the equine became someone with whom the Veteran could relate, thereby also encouraging compassion and respect for others and awareness of their impact on the relationship. For example, Mike reflected that neither he nor Winston liked to go in straight lines, so Mike felt a sense of accomplishment when they achieved straight lines together. Darla related to Star, describing:

he has all these different aspects to him, because they're all so unique and have their own personality traits and all of that stuff. One of his I really saw from the beginning was that he has walls up, and as much as I appear to be open and friendly and all of that stuff, there is a lot that I keep inside. There still is. Working with him and watching him slowly open up to me made me feel like, well, if he can do it, then so can I. (Darla)

Russ experienced a powerful moment with Harley. Returning from the trail, Harley stepped on a rock and twisted his left hind leg, leading to mild lameness. Russ dismounted in the arena, untacked, and hosed down Harley's leg with cold water, and then came to the arena for some groundwork with Harley. After class, he reflected that he was seldom emotional and feeling with people, but with Harley that day, he felt "that" feeling he used to experience as a Navy Hospital Corpsman watching out for "his" Marines – a feeling that he can't leave them behind – and experiencing feelings of this magnitude again "scared the shit out of [him]."

Finally, in noticing Bucky's behaviors, Gena reflected on her own feelings and actions and her role in their relationship:

sometimes it's just like he doesn't want to be touched. He'll move away from me or try and back up so I can't get to him. Then when I'm riding, he'll get a wild hair up his butt and decide, 'nope, I'm not going to do this.' It's his personality and I wouldn't change that for the world. Everybody has their times when they want to do what they want to do and don't want to listen to anybody else. I don't think it would be fair if I got mad at him just for being who he is. ... I'll get frustrated, but I try not to let myself get angry. I breathe and I concentrate on what it is I want him to do and try to keep the tension out of my muscles because I think when I tense up he doesn't know exactly what I want, so he's just trying to guess... I never really thought about how I was acting or what I was doing or the reactions between my body and my brain... (Gena)

Mirrors. Related to this, the equines became mirrors, helping the Veterans become self-reflective. This is evident in Gena considering the impact of her actions on Bucky. Darla saw her concern for the well-being of the horses reflecting her own military experiences, and reflected "[these horses] have shown me so much about what I've got

going on, even if I don't want to admit it, and you can't really lie to them, because they don't lie to you." During the incident between Vinnie and Lola, Mary saw Joy reflecting her centeredness and calmness in being non-reactive. On more than one occasion, Veterans took equines' tension as a sign they needed to monitor their own tension, taking a moment to breathe, center, and relax.

At times, the equines provided a reflection not necessarily of what was, but what could be. In other words, Veterans saw qualities in the equines they wished to emulate, and qualities in their interactions with the equines that they wanted to replicate with themselves:

I'm trying to treat myself with more compassion when I screw up or when I have a bad day. ... Mischief here is such – he's so young and so vibrant and has his own program, and he clearly wants to do it. And that's kind of like a part of me who wants to do the bad behavior side – but never once have I ever gotten frustrated with him or angry with him or upset with him because he didn't do what I wanted him to do. ... So I'm trying to apply that, his stubborn attitude towards my stubborn attitude so I can look at it with a little more compassion...I want to get that better connection with myself. (Jennifer)

I also feel there were moments when the equines were reflecting the Veterans even if the Veterans were unaware, such as the case presented above, where Winston was reflecting some of Mike's tension – as Mike choked up on the reins, Winston became fidgety – while Star mirrored Darla's relaxed posture. The next class, Darla, Jennifer, and Mike worked with Mischief in the round pen. This was also a day in which the counselor and the Veterans challenged each other to be honest, after some thoughts and feelings had been withheld the prior week. As Mike was working with Mischief, Mike was not giving consistently clear directions to Mischief. For example, at one point, he was driving Mischief forward with the lunge while, while also inviting Mischief to stop and come to the center through his body language. Mike observed that Mischief did not seem to

understand his instructions. As the class progressed, the counselor and Veterans challenged each other to talk honestly about their military experiences. Mischief rolled and shook and lay down, allowing Mike to hug on him and seeming to reflect the Veterans' shedding metaphorical layers and sharing experiences.

Security. Fourth, the equines embodied comfort, safety, and relaxation, helping Veterans feel safe enough to relax, themselves. Jennifer felt that "you [Lola] took care of me," and Tyler reflected "If [Vinnie's] relaxed, what is there to worry about? Because horses, they're like the prey species, so they've always gotta' be aware. If he's not on alert, why should I?" Jasmine felt "the horses are just so calming...I like the grooming. I find that just very calming," which she appreciated because

[I'm] trying to find some sort of peace in my life. For me everything is like I'm always rushing to do things and being out here, I noticed that it requires a certain amount of patience and everything is just kind of slowed down and there's no rush to do anything. (Jasmine)

And for Mary, Joy was her "safe spot" during Eye Movement Desensitization and Reprocessing (EMDR) therapy, as Mary imagined "riding Joy, connected to the horse, effortless, fluid."

Contributing to this sense of safety was trusting the equines to provide honest and instant feedback, and to protect your secrets. "You can't really lie to them, because they don't lie to you...they're this living creature that gives you feedback, and the kind that you don't get from even a lot of people" (Darla), and knowing "[the horses] don't judge people" (Daniel). "You can sit there and talk to them...and you know they're not going to say anything back, they're not going to be like, 'well that's a dumb thought'" (Jasmine).

Power. Fifth, the equines empowered the Veterans, also helping build self confidence and self-esteem. "The biggest thing I get from horses is that power – the first

time I experienced that was here " (Mary). "It's empowering to know that you can get the horse to do what you want if you do the right thing" (Jasmine). Daniel felt empowered that "I was actually helpful in his [Jasper's] development," and Mike found "to know that I can do those things and to be successful on the horse and in those moments...helps to build that confidence." Jennifer found connecting with Lola to be an empowering experience, "no matter if you're beautiful with 17 hands tall, legs 'til Tuesday, and I'm a little shrimp; it's okay, I'm still going to love you and take care of you," as well as a ground activity in which each Veteran wrote things precious to them on slips of paper, placed the slips of paper in a feed pan with horse treats, and then practiced asking the equines to stay back behind a ground rail until the Veterans invited them into the space to each the treats. "That one...made me feel like I do have control over these things even though sometimes people don't listen, and I was able to say "no" to Ranger and he listened and he responded, and that was really powerful for me" (Jennifer). Darla also experienced empowerment in saying no, "like the time we worked with Mischief, and... I didn't feel safe. I have felt unsafe so many times and had to keep my mouth shut, so...for me to say no, that was a big deal."

The equines even offered means to explore ideas of accepting versus trying to change certain conditions. For example, there was discussion of equines' inherent survival instincts and how, consequently, it is not necessarily possible to control or change their reactions, but it is possible to work through the reaction in order to recover and re-engage, leading to smaller reactions and quicker recoveries over time. This helped Mary shift her perspective regarding her own anxiety, thinking about "making friends"

with it or "treat[ing] anxiety like a person standing next to you" rather than trying to extinguish it.

Purpose and sense of self. Finally, the equines gave the Veterans a sense of purpose and helped them explore a new sense of self. Working with the horses each week gave Veterans something to look forward to each week, a reason to "wear pants and take a shower" (Mike). For Tyler, "it's literally the only thing I look forward to all week...I'm lost when I'm not doing it."

With the horses, you're doing this physical work and it's rewarding... and then I think it helps foster, "now I'm going to open up because I've got this job to do." ... There's a part of me that feels a little lost, like I don't have as much purpose anymore or I don't have that thing to identify with, like, I do this, this is me. And if I come out and work with horses, that's something I can tell people about that's positive, it doesn't make me feel like less than; it's like that's good, hard, honest work to be out there and getting dirty and working with them. And we only do our little part, but if it makes the horse's day better, then that's amazing, that to me is an accomplishment... If I'm the one person this horse hangs out with today, at least he's got loved on, he's gotten some attention, some affection, and I think they need that, too. And then we feel like we're a part of something and we're contributing in that way. (Darla)

Some of the Veterans reported having days where they didn't feel like getting out of bed and almost didn't come to class, but they made it and left feeling better:

There has been days when I have been so depressed that I felt like I don't even want to come riding... but I always make myself go, and every single time I have never once left feeling worse; I've always left feeling better. And that's what I keep telling myself, "if you can just make it 'til Tuesday, or... Wednesdays and Fridays, if you could just make it 'til then, then you'll have something else to look forward to. (Jennifer)

Having this sense of purpose, as well as specific tasks while on site, facilitated the therapeutic process, as Mike explains, "it may be a military thing, it seems a little easier to open up and share while you're busy, while you have something to do, and it's not just a speaking session." Darla observed the same:

From the very beginning in the military, that's the one thing the Vets have in common...all of us, when we go in from day one, are physically challenged...when you have these physical tasks to do, it's just like, that's how we build community...so that feels familiar enough to where it can have a good impact on Vets. Like, it is easier to sit here and talk to you while I've got this horse to brush, or if I'm picking their hooves. (Darla)

Purpose also manifested in the desire to help others, fostered through the connection with equines. For most Veterans, this meant supporting each other – listening, offering advice, asking how issues outside of the program were playing out. Jennifer, Daniel, and Matt took their support one step further and began volunteering with therapeutic riding classes, Jennifer and Matt on-site, and Daniel at a different site.

Shared Experiences and Outcomes

Returning to consider the complex layers of interactions and shifting influences, I also return to the core question: what was this experience for the participating equines and Veterans? I identified five themes with applications in varying degrees to both the Veterans and equines: (re)connecting; safety and belonging; learning and development; power; and purpose (Figure 68).

(Re)connecting	Safety & Belonging	Learning & Development	Power	Purpose
<ul style="list-style-type: none"> •With self •With others: <ul style="list-style-type: none"> •equines •Veterans •family •civilians •On- and off-site 	<ul style="list-style-type: none"> •Supportive, welcoming environment •Rhythm, Relaxation, Regularity •Leadership 	<ul style="list-style-type: none"> •Knowledge & Awareness •Skill sets •Self •Social •Transfer and transformative experience 	<ul style="list-style-type: none"> •Power versus Force •Control •Choice 	<ul style="list-style-type: none"> •During classes •Between classes •Paying it forward

Figure 68. Making meaning of the experience: Common patterns.

(Re)Connecting

For the Veterans, the immediate experience was about connecting with the equines and reconnecting with themselves, as well as connecting with each other, the center personnel, and even nature – reconnecting with life outside themselves. Activities such as grooming, groundwork, and mindful riding facilitated connection and trust between the equines and Veterans, and contributed to Veterans' (re)connections with self, including body awareness, relearning physical limitations, finding self-compassion, reconnecting with emotions, discovering and developing voice and power, and for the women, reclaiming femininity and female power through connection with the other women. The equines created a natural means for the Veterans to connect with each other (Figure 69), learning about equines, horsemanship, and riding together, and especially through activities with shared goals, such as the case described above with Darla, Mike, and Lola, asking the Veterans to co-construct an obstacle course and then lead horses through together, or executing drill team patterns. "It just is like another level of team work because you're working with your horse, working with everybody else's horse and their needs...and that just makes you aware of your surroundings and what you're doing and...what everybody else is doing" (Jennifer). "It took me back to that team mentality that I had the entire time as in the Army. There's a connection there that felt comfortable and it felt safe. It felt right" (Gena). The EFP class check-ins also strengthened the Veterans' connection with each other, with the exception of Russ, who actually felt excluded as a result of the group dynamic, feeling that the other men weren't listening, and only one made an effort to stop and talk with him outside of class. For others, though, the check-ins provided an opportunity to listen to each other, to be heard, to connect over

common issues and even offer each other advice, and realize they are not alone in their experiences. "It's always nice to know that you're not the only one struggling. I have always thought that I'm the only one" (Jasmine).

The Veterans extended their connections beyond the limits of class time. They would strike up conversations before class or continuing them afterward, gathering in the parking lot, classroom, or near the equines (Figure 70). Some of the Veterans exchanged contact information and connected in other social contexts, becoming Facebook friends, attending events together, supporting each other through occurrences such as Darla's thesis defense, or meeting up for a drink.

Center staff and volunteers connected with and supported each Veteran and equine, as well (Figure 71), checking in with equines' well-being and really getting to know the equines with whom they worked, and then checking in with the Veterans and getting to the Veterans to the extent the Veteran was comfortable sharing. They also tried to foster the connection between Veteran and equine whenever possible, helping draw Veterans' attention to the equines, reassure the equines, and intervene if needed to keep the Veteran and equine comfortable and safe. Connections were evident among the equines in a similar sense, as equines bonded with their Veterans and shared connections with the other humans and equines in the class (Figure 72). Perhaps the equines even engaged in their own debriefings after class, relating what their silly humans did or did not do today (or whose human was feeding treats that day).



Figure 69. Veterans connecting through shared equine activities.



Figure 70. Veterans connecting outside of class.



Figure 71. Veterans connecting with center staff and volunteers.



Figure 72. Equines connecting with humans.

The experiences at the center also helped Veterans with connections off-site. Daniel used these experiences to connect with other Veterans, as well, sharing how he approached a Marine at a local brewery, having noticed the individual's shirt, and "we were talking about the Veteran piece and the suicide thing and stuff, and then I told them I was with horses and we wanted to have some Veterans ride; he goes, 'where's your office?'" Other Veterans found their experiences helped them connect with family members and civilians in their daily lives, learning "how to have a filter" (Tyler), how to "try to figure out another way to approach [my kids]" (Mike). Darla "end[ed] up getting a boyfriend...that is a new development...for the last few years it was on purpose that I wasn't with anybody, because I felt like I had so much work to do and that I was nowhere near ready to give anything of myself because I didn't think I had it in me. I believe now that I do." Jennifer connected with her sister over horses, sharing "I love getting [to ride] with my sister...or I always text her after and...get to tell her what I've learned and share that with her, and that's always fun. We want to open our own ranch." She was pleased that, with her equine knowledge, she was able to help assess a situation in which a horse was nipping at her sister while grooming before the lesson. Daniel similarly reflected:

[My wife] has noticed the patience with the kids, especially, and we were talking about it. Like, I'd get home, "I got some free counseling today on patience and kids." And so we would talk about that and I could share those lessons with her, as well. So it was cool. (Daniel)

For Gena, working with horses contributed to self awareness, which facilitated greater connections with family:

I want to really continue...concentrating on my connection with the horse, not putting those walls up, because that's helping in my personal life; I don't automatically put walls up when people are around – or at least not with my family – anymore. (Gena)

Got Your Six: Safety and Belonging

Russ recently shared with me this phrase, "I have your six," or "got your six," basically, "I got your back." With this, he expressed, "[because of] the horses, and you. I felt like I had my 6, my back covered." The connections with equines, fellow Veterans, center personnel, and the environment itself created a sense of safety and support for the Veterans, beyond measures like requiring helmets and checking tack prior to mounting. "I think...feeling like I belong. There is nobody out there that's judging...it's just a great place out there. The fact their whole mission is to help people with the help of horses." For Darla, "[It's] been rewarding to know that there are even people out there that give a shit enough to do something like that." Mary appreciated the environment in terms of being outside and noticing "you don't feel like you have a disability when you show up...everybody talks to you like you're a normal person. It always just felt really welcoming and accepting." Russ appreciated "they [instructors and volunteers] listen effectively which means more than anything. They aren't texting...for the most part they are looking at me while I talk. I feel like I matter." The segregation into the men's and women's groups seemed to support this sense of safety and ability to relax, as well,

allowing Veterans to feel comfortable talking and just being without worrying about offending someone of the opposite sex, or being perceived as weak.

The counselor's "3 Rs" – rhythm, relaxation, and regularity – also contributed to the sense of safety and belonging. The Veterans appreciated the rhythm and regularity of the classes, again reflecting on the power of having something to look forward to each week and feeling lost between sessions. The rhythm on-site contributed to Veterans' and equines' the ability to relax, getting in the habit of checking in prior to riding, knowing that volunteers would aid in preparing the horses in order to avoid feeling rushed. "I'm always rushing to do things; being out here...requires a certain amount of patience and...there's no rush to do anything" (Jasmine). This calm and relaxed environment seemed important to other Veterans, as well; Russ noted during one class that his volunteer seemed hurried to get Harley groomed and tacked, and it was a rather off-putting experience.

Related to rhythm, relaxation, and regularity, leadership was important to the Veterans and equines. The Veterans seemed to appreciate the chance to choose their experience, having as much control as they wanted, but also not feeling pressured to make decisions and take charge of situations. Equines, by nature, seek safety and strong leadership. The instructor and volunteers were ultimately responsible for making sure equines were safe with their needs met, though this concept was also reinforced for the Veterans, and they were mindful of the mutual relationship. "I can see the difference there that a lot of that has to do with me, and so the more comfortable I get and the more confident I get in that situation, the horse will comply" (Mike), "you get to learn and say 'look, it's okay,' and they do the same thing for you" (Jennifer).

This sense of safety is a vital consideration for programs such as these. Coming to an unfamiliar environment to engage with strangers and large animals (or strangers and predators, from the equine's perspective) can provoke anxiety. If Veterans do not feel safe, they will not participate. Indeed, there were several Veterans who expressed interest in joining the program but did not come. Gena "sat in my car for 20 minutes before I even decided, 'yes,' I was going to do it...I could force myself to get there, and then once I got there, I was like, I have to get out now." Similarly, if the equines did not feel secure in themselves and their environments, their ability to engage in the class would be limited, potentially posing further safety threats to themselves and others, as in the case with Star.

Learning and Development

The Veterans and equines both engaged in learning and development over the course of the program. There are sayings in the equestrian world related to teaching and training, along the lines of "you are either training or untraining your horse" or "every time you [ride] your horse, you are teaching or reinforcing something." The point is that any time a person engages with an equine, the equine is going to learn something from the interactions. This applied to the Veterans' classes. For the equines, much of the learning and development was cognitive, psychological, and social in nature, related to learning (and testing) boundaries, patience and tolerance with the Veterans, learning new exercises (such as engaging in the drill team patterns), refining skills (such as practicing collection), and learning to generalize and adjust to variations on common cues (for example, recognizing nonverbal and verbal cues for "whoa" despite slight differences in balance, body position, order of cues, and vocal inflection). Regular physical activity also contributed to their physical development and wellness. The equine manager schooled

and conditioned equines between classes to help reinforce and refine the equines' skills and abilities, thereby also providing opportunities to learn and develop, as well as offering leadership and regularity from a different source.

The Veterans also experienced physical, cognitive, social and emotional developments. Although there were no formal assessments of skills, knowledge, and understandings gained, Veterans spoke to a vast array in the classes, interviews, and surveys. Much of this related to equine-related knowledge and skill sets, which the Veterans learned through a combination of verbal instruction, modeling, and hands-on experience (Figure 73), as the instructor encouraged Veterans' independence. Equine knowledge included identifying basic anatomy, decoding nonverbal cues, learning the different gaits of the horse, understanding how to communicate effectively with equines, even learning about different breeds and common ailments and treatments. Veterans also reflected their knowledge of horse handling and riding skills: basic handling and safety on the ground and mounted, names and uses of grooming tools, parts of the equipment and how to tack, mounting and dismounting, how to ask for changes of gait, how to steer, basic arena etiquette, how to sit the trot, how to post the trot, how to position their body to best facilitate the equine's movement, and a number of related skills. Several Veterans also reported learning – or "unlearning" (Mary) – that working with horses and riding was more complex, more "technical" (Daniel), than they had imagined. "I always thought riding horses was just sort of...you just get on the horse and ride it, and never really even considering the horse as an individual and that it has to be a cooperative relationship" (Mary), suggesting that misconceptions were addressed as learning advanced.

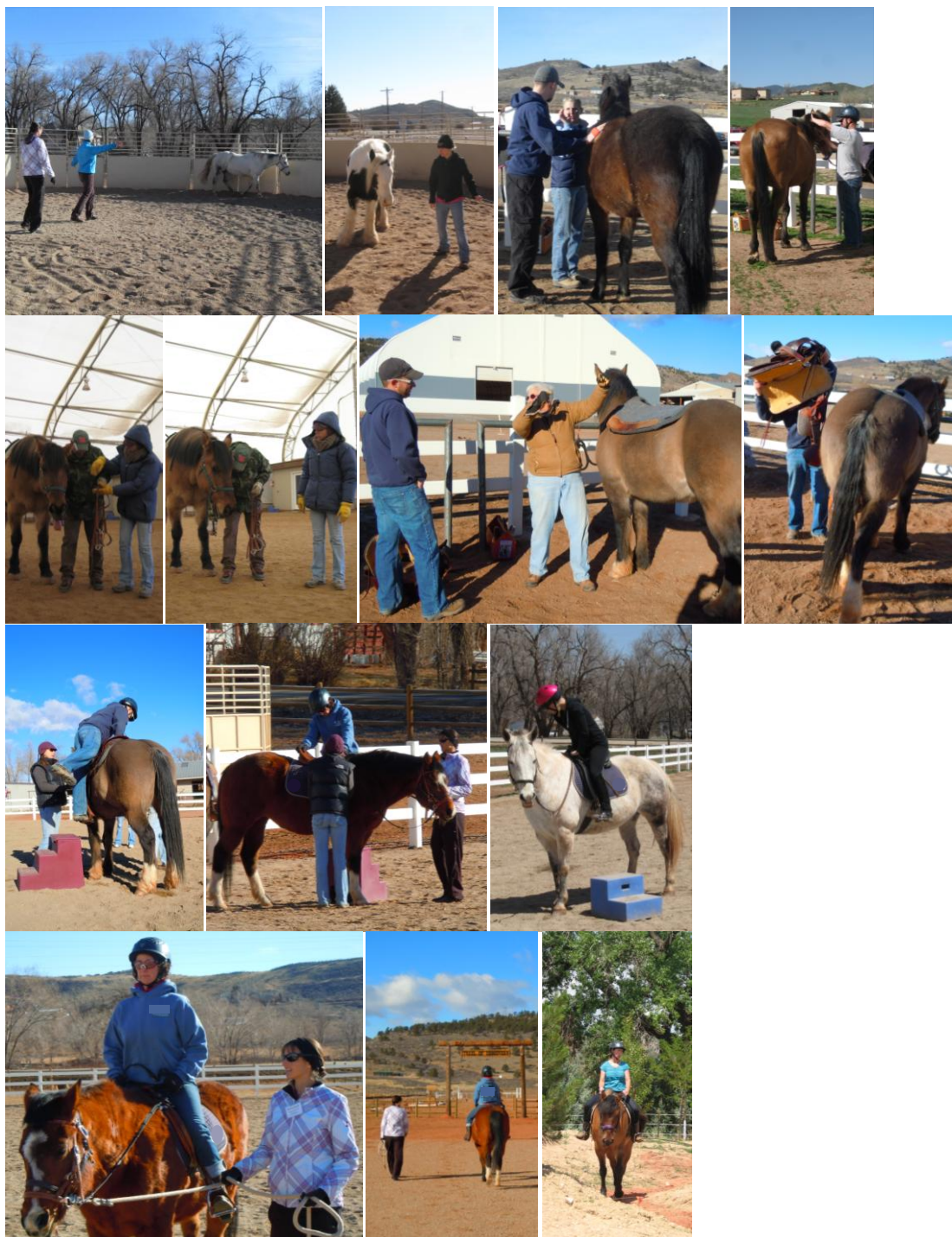


Figure 73. Learning equestrian skills and increasing independence with the help of staff and volunteers. Top row, left to right: roundpen with assistance and without assistance; grooming with assistance and without assistance. Second row, left to right: instructor models putting on the sidepull and then Veteran tries; volunteer models saddling and then Veteran tries. Third row: mounting with and without assistance. Bottom row, left to right: riding on-lead; riding off-lead with spotter; riding independently.

Through this, the elements of the training pyramid framework filtered through into the Veterans' responses. For example, during the last class of Session I, when asked what they learned and got out of the session, Mary and Tyler summarized having experienced the 3 Rs (rhythm, relaxation, regularity), in addition to connection, control, choice, trust, [reduced] anxiety, and feelings of power [without force]. Several Veterans also observed increased self-confidence, focus, and sense of peace, calm or relaxation.

Transfer and transformative experience. Learning about horses, horsemanship, and riding in this context, as well as the check-ins with the counselor, offered a number of lessons and tools for day-to-day living beyond the equine context. "Now that we're civilians, we need new tools, we need a way to get back into society in a way that makes sense to us" (Darla). And so the Veterans learned information about PTSD and how the brain processes trauma, and about wellness-related topics, from nutrition to sleep to positive contributions of video games, especially as related to their common desire to reduce or get off medication. Even learning to breathe deeply was a skill that required guidance and practice. They learned about communication, with equines and with other humans, practicing communication skills, as well as focus, intent, and being present. They learned patience and strategies like the "pre-flight check" for managing anxiety and tension. They learned deeper truths about themselves, such as "I do have a couple more [PTSD] symptoms than I thought" (Daniel), and "you can't just go back to who you were before because you're never going to be that person again" (Darla). Gena similarly gained some self perspective:

I understand what I feel a little bit more. I'm still not happy with it, but I'm accepting it. ... At least I know what's happening now. Especially having [the counselor] explain some of the things that go on with our brains and our bodies

and the way everything works. I think that helps a lot because then I can make a connection to, "okay, it's not that I'm broken." (Gena)

Through these lessons, the counselor encouraged discussions of the relationship between the work with the horses and day-to-day life – finding ways to capture the on-site feelings to take with them off site. Carrying the feeling proved a bit challenging at times, "I still had a hard time carrying that [self confidence] away with me," (Russ). Nonetheless, the Veterans reported that these lessons did influence how they viewed and engaged with themselves and the world around them, and the experiences with the equines provided grounding experiences – that anchor for making comparisons. For example, Mary connected, "I was having a lot of anxiety, and...relating it to how you facilitate the horse not having a super big reaction; you learn how to do it with the horse so then you can do it with yourself." Additionally, Mary was able to work through some of her anxiety and fear about taking her dogs out without a leash:

I finally just gave in and said, "She is going to be a lot happier, why don't I just chill out and use my experience with the horse like being calm and projecting calmness, then something bad is probably not going to happen." And so I have been taking the dogs out to this big open space area where they can run around...and it felt so much better...and that was definitely because of the horses. (Mary)

Jennifer observed:

not everybody learns the same way, not everyone hears the same way. Just like the horses...each horse is so different...they all need something a little bit different. And it's like people, you just need to figure out how you can communicate with each of them. ... And you get to learn something new about yourself with each horse, too. (Jennifer)

Jennifer also noticed that, at the very least, working with the equines was complimentary to her other treatment pursuits:

I'm able to take the breathing and the grounding that I have to do here and apply it all over because I have to do it when I practice my yoga therapy; when I practice my other techniques that they teach me, I can bring them here, too, to work with

the horses. ... I've been doing more activities in my personal therapy focusing on one part of my face at a time...I had to talk about all the things that I like...and a lot of them were horse related. I like the fact that I can smell horses...that I can rub my nose on their nose...I can kiss horses, I can talk to horses. (Jennifer)

As noted above, Veterans' experiences with the program influenced their relationships. Daniel spoke to learning patience and noticing a difference with his children, and sharing the parenting advice he gained in class with his wife. Gena remarked that her husband "said he will find a way to rearrange his schedule so that I'm able to be there every week...because he has seen so much of a difference in how I was before to how I am now," referring to decreased anger and tension, and increased feelings of being at peace. Mike related:

[working with horses] sends me through a whole process of, "okay, what I'm doing isn't working, let's back up and go back to what I've learned, and what I remember and try again." I don't do that in life, and so it's different. It's helped me learn how to try and figure that out. And even taking it home, it's helped me with the kids a little better...back up...take the time out and just try to figure out another way to approach. (Mike)

Daniel and Tyler even noticed themselves applying their equine knowledge, seeing other horses and wondering, "[about] the horse's personality and if they're a good horse or a bad horse or if they're malnourished...all these questions come to mind because I know more about horses" (Daniel). Daniel was also using his knowledge to help in his volunteer work, "I'm giving pointers like, just stick out your hand like this and let [the horse] smell you. And you need to be really close to their hind legs or really far...all those tips I've learned." Daniel also saw Veterans in a new way, "what other Veterans are going through, I had no idea" (Daniel), fueling his desire to give back, pay forward, or otherwise help fellow Veterans.

Power

Power was more relevant for the Veterans than the equines, though, again, the equines contributed tremendously to this sense of power, and in empowering the Veterans, the equines gained more confident leaders and partners. Additionally, working with the equines who were less confident like Jasper and Star could have helped build their trust, confidence, and consequently sense of empowerment. For confident equines like Mischief, every time he succeeded in executing naughty behaviors, like pulling Jennifer to the grass, he was also empowered to continue in those behavior patterns. The Veterans also had the opportunity to empower their equine partners by speaking up for them, such as when Matt observed Tyson seemed sore-footed and suggested not riding him much and when he asked for fly spray for Stan. Similarly, Mary noticed that King seemed sore in his back during one class, deciding to dismount, untack, and finish the class with King in-hand, and making sure the equine manager was alerted. In this way, the partnership between equine and Veteran served to empower both parties.

The center personnel also sought to empower the Veterans. In the EFP classes, the counselor also wanted to allow the Veterans to create and control their own experience – one reason she hesitated to impose too rigid a lesson plan structure. If Veterans wanted to do nothing but groom that day, she wanted them to be able to groom. If they wanted to work on relaxing pelvic muscles, she would work with the instructor to incorporate riding exercises to relax the pelvic muscles. Above all, she wanted the Veterans to feel empowered for what they wanted and needed. This resonated for Mary, who reflected, "[It's] a new experience NOT going into [a] shit storm, having power, choice, taking control and deciding the course." In the EFL and TR classes, the instructors sought to

empower the Veterans similarly. Though the classes had more emphasis on horsemanship and riding skills, the Veterans and equines still exercised some influence over how specific activities played out for the day, and the goal was to help Veterans be as independent as possible, so volunteers were instructed to assist no more than necessary. In terms of teaching style, the instructors often offered choices and suggestions to allow the Veteran to think, experiment, and find an approach that worked for them and the equine. Russ found this approach particularly effective:

I think the most enjoyable and helpful part of this experience was actually the instructors...people who are able to correct you without you realizing...I started to experiment...and ask questions about the differences [in ways of doing things]. ... [that helped] with my riding, yes, and...so much more as far as my self esteem, self confidence. (Russ)

Finally, as noted above, reclaiming female power was important for the women, having learned to "forget" being female in the military (and even outside the military), or experiencing tension and competition among women serving together. Mary and Jennifer requested to work with mares for this very reason. Following her round pen and mounted work with Lola, Jennifer was empowered to communicate to Lola "I'm going to take care of you and it's okay...and I deserve to be listened to and heard" and also "learned that I can [ask with intent] and it doesn't make me mean and it doesn't make me a bitch." Mary felt "the biggest outcome was how the experience helped me understand the importance of possessing my own personal power in the absence of force, as this has been a long standing source of my PTSD." For Gena, connecting with other women Veterans simply meant "It feels good not to feel alone anymore."

Purpose

This program provided both Veterans and equines a sense of purpose. Many of the equines in the program had been retired from their former work, and although equines

may not seek self-actualization in the way humans do, and the issue of whether or not equines enjoy "work" in the context of being ridden is a controversial one (e.g., König von Borstel & Keil, 2012), equines do seem to enjoy positive social attention and stimulating environments that incite what Panksepp and Biven (2012) and Grandin and Johnson (2009) refer to as SEEKING and PLAY systems. This environment might provide outlets for such positive social interactions and stimulation.

The Veterans, in turn, felt they were giving back to the equines in providing this attention and care. Veterans also felt purpose in supporting each other, even if only lending an ear during the check-ins and offering advice and assistance when possible. And then some of the Veterans went on to pay it forward. During Session II, Tyler, Daniel, Mary, and Jennifer volunteered a class session to work with a group youths from a local school who were described as at-risk. These and some of the other Veterans served as volunteers at this center or in other capacities, reaching out to Veterans or supporting the community in other ways, such as coaching youth sports.

Each Veteran was glad to have participated in the program, and noted the importance of this experience in their recovery process. "This [is] the single most important part of my recovery. I feel that it provides incredible stability and a safe place to learn and explore healing" (Mary). "I love how I feel when I am around the horses. I also enjoy getting together with the other Veterans" (Jennifer). "I don't want to give up. [This] has given me hope that I can improve myself and enjoy more of life. It's challenging to face my fears, but I have to keep trying" (Darla). "I am happy [with] the results. I was able to build relationships with others, as well as an amazing animal who "gets me" (Tyler). "This program has...changed my life. I found something I love and am

very good at, and lasting, caring relationships from the staff and other Veterans. This place has opened so many doors to healing and acceptance" (Mike). "Thank you. Thank you. Thank you" (multiple Veterans). "Thank you all so much from the bottom of my heart. I love [this place] and everyone involved for what they do for people and their community. And the horses themselves are the life savers" (Mike).

From the Veterans (Figure 74)

We're not crazy. We're Veterans.
And your welcome for your freedom.

I was trying to function again
like a normal human being.
Normal's pretty much gone.
The New Normal.

Therapy for five years.
This treading water shit
is not helping me.
This eight-week program has
gotten me further
than any therapy I've done.
Hard-learned lessons.

It's the whole package.
[The horses] put it over the top.
The heart and soul.

Calming. Peace.
No rush to do anything.
Trust. Compassion.
Purpose.
Connection.
I don't feel judged.

Unlearning.
Finding the hover button.
Something to look forward to every week.
It gives me that
motivational kick in the ass
to make it just a few more days.
Even a bad ride is a fabulous day.
Nice to walk around
outside of the fence we're normally in.

It's all been such a learning process.
A scratch in the surface.
It's literally changed my life.
Self-care.
I deserve this.



Figure 74. Veteran drill team.

From the Equines (Figure 75)

I will bear more than your burdens.
 I will bear you.
 I will be your mirror,
 serve as the canvas
 for your self-portrait.
 Accept you.
 Challenge you.

I will not judge.
 I don't know you
 outside of this context.
 I only care about now.

Recognize me as I am.
 Give me security.
 Allow me to play.
 Don't forget
 how sensitive I am.
 Despite my size,

I feel every fly,
 sense every tense muscle
 in your body,
 out of balance,
 bracing,
 protecting.
 We are okay.

I am here.
 next to you,
 carrying you,
 helping you stay present
 in the moment.

Put your arms around me
 your ear near my heart.
 Breathe in my earthy smell.
 Run your fingers through my mane,
 Feel my warm, soft coat against your skin.
 Match your breath to mine.
 Stay with me



Figure 75. The equines.

CHAPTER VII
FRAMING THE FINDINGS: DISCUSSION
AND IMPLICATIONS

When we act from our center, the place of truth within us, action is based on the fusion of value and fact, meaning and relevance, and hence is totally committed. Only by personal commitment to the here-and-now of one's life situation, fully accepting one's past and taking choiceful responsibility for one's future, is the dialectic conflict necessary for learning experienced. The dawn of integrity comes with the acceptance of responsibility for the course of one's own life. For in taking responsibility for the world, we are given back the power to change it. (Kolb, 1984, p. 230)

Life is guided by a changing understanding of and interpretation of my experience. It is always in process of becoming. (Rogers in Kirschenbaum & Henderson, 1989, p. 28)

**Framing Findings Theoretically: The Transformative
Learning Experience**

Veteran and equine experiences with the program were reflective of existing literature and ideas about human-animal interactions; ideas about the value – even necessity – of human-animal interactions provided the rationale for the very existence of the program. Principles of horsemanship guided these interactions and activities, further contributing to the overall experience. Natural horsemanship tenets, specifically, influenced my analysis and interpretations of the experience. Beyond this, Veteran and equine experiences, as well as my analysis and interpretations of these experiences, were also influenced by humanistic education and psychotherapy perspectives, and embodied experiential and transformative learning theory (Figure 74).

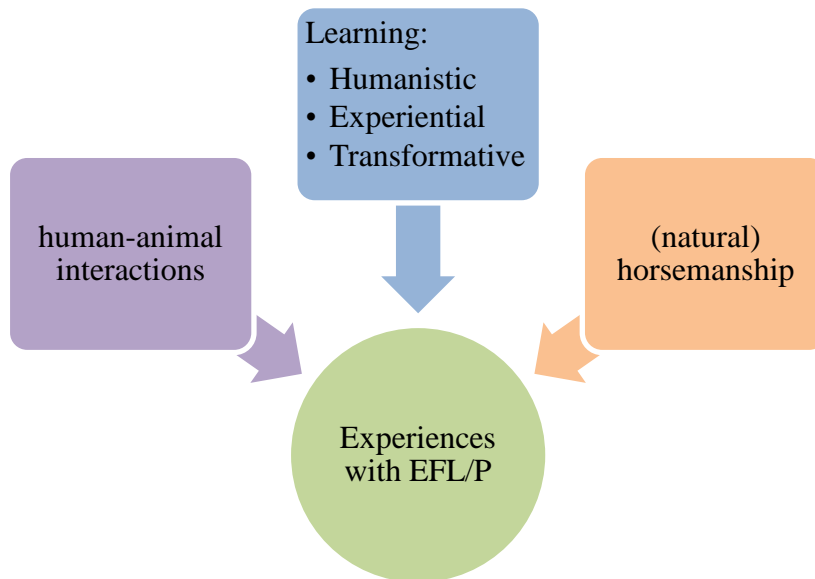


Figure 76. Theoretical framework revisited. This figure illustrates the relevant theoretical perspectives that guided the program and analysis and interpretations of participants' experiences.

Though the TR and EFL classes were arguably more centered on the human-equine interactions than the EFP classes, all three relied on human-equine interactions experiences as the foundation or the heart of the program. The opportunity to engage with equines attracted the Veterans to participate, provided impetus to continue participating, and facilitated learning and growth in numerous ways. In addition to gaining knowledge and skill sets directly related to equines, Veterans reported changes in areas such as communication, compassion, confidence, patience, socialization, and trust, and gained new knowledge and resources for managing anxiety, PTSD, and similar symptoms. These outcomes are consistent with other findings from research into human-equine interactions. Some of these outcomes might also be attributed to the attention to horsemanship. Researchers have suggested that approaches like natural horsemanship (or whatever terminology is applied) contribute to positive outcomes for human and equine

(see Birke, 2008; Maujean, Kendall, Lillan, Sharp, & Pringle, 2013; Rozempolska-Rucińska et al., 2013). This also shaped equines' experiences by promoting positive interactions with attention to the relationship, and providing a consistent model or standard for interactions.

Ideas about human-animal interactions and natural horsemanship might have influenced not only the foundations of the program and my analyses and interpretations, but the expectations of the Veterans on entering the program, illustrated through responses such as "It had been my experience and understanding that horses are a powerful tool when dealing with mental and physical issues" (Mike) and "I believe animals can help a lot more than just sitting in an office receiving therapy" (Jasmine). These beliefs might be reflective of past experience, but also influenced by the increasing attention to AAI in the media, and by word-of-mouth testimony; as Jasmine noted, "I have heard from Mary that it had helped her be more compassionate, and helped her get in touch with her emotions...so just from hearing that I thought, well, maybe that could help me." In this sense, participants might have been primed to perceive certain effects of the program.

The goals of the program and approach of the personnel were consistent with humanism and humanistic education. Beyond facilitating human-equine experiences and learning related directly to the equines, was consistent with humanistic education, the sentiment was to facilitate experiences that contributed to the Veterans' holistic growth as individuals, helping them learn "self-knowledge" (Valett, 1977, p. 7), to recognize and manage emotions and feelings, reintegrate into society and connect with others, and "produce a good and relatively happy person who is capable of living a creative and

meaningful life" (Valett, 1977, p. 6). In approaching this goal, Veterans developed cognitively, physically, socially, and emotionally. All of these conditions are consistent with the purposes and characteristics of humanistic education. The Veterans were essentially relearning how to live with and in their "new normal." Additional characteristics of humanistic education, according to Valett (1977) are the self-directed nature of learning and the role of the educator as a guide, facilitating experiences rather than directing them. In the case of EAAT, the human instructor facilitates equine experiences, while the equine facilitates the participants' learning process and cognitive, physical, social, and emotional development. The learning was particularly self-directed in the case of the EFP classes. In the EFL and TR classes, there was more structure as far as planned daily activities, but still room for self-directed learning in that the instructor adapted activities to meet the daily needs and desires of the Veterans. On at least one occasion, the lesson plan was entirely modified based on the expressed needs of the Veterans.

Despite the anthropocentricity of the term humanism, the principles somewhat extended to impact the participating equines, as well. Although natural horsemanship doesn't strive to help horses reach self-actualization and recognition of self-worth, there is some consistency in talking about helping the horse become more confident and comfortable with themselves, helping the horse on the inside. Through this, the horse also develops physically, cognitively, and socially, but must be in a relaxed state of being with basic needs (e.g., food, water, shelter, safety, health) in order to develop. The trainer's job is not to force the equine, but to support their learning and development. Though training sessions are largely human-directed, there are moments bordering on self-directed

learning when the human's needs and desires are set aside to address the immediate needs of the horse. Additionally, many horsepeople recognize activities their horses seem to enjoy or not enjoy and try to respect these perceptions of their horses. While human perceptions and assumptions might not be accurate, the sentiment is there. And as the horse learns and becomes confident, their creativity, playfulness, and unique personalities thrive. In these ways, humanism and natural horsemanship are complimentary ideas.

This experience, at least for the Veterans, also embodied experiential and transformative learning, particularly drawing from psychocritical, psychoanalytic, psychodevelopmental perspectives of the transformative learning theory. Like the goals of transformative learning approaches and Kolb's (1984) vision for experiential learning, the intent was that participation in these equine activities would help the Veterans engage in an exploration of self (Dirkx, 1997), developing greater independence and self-compassion (Mezirow, 1997), as well as greater interdependence and compassionate relationships with others (Boyd and Myer, 1998). The experience would challenge the Veterans and support them as they achieved, or at least approached, integrity – wholeness and unity that transcends dualistic thinking – thereby finding their center and reclaiming power (Kolb, 1984). This also embraced the idea of experiential learning in that prior and current learning was seen as rooted in experience, and the ideal was that current, concrete learning experiences with the equines would contribute to skills, knowledge, and insights that would impact experiences and actions beyond the confines of the program. "What he has learned in the way of knowledge and skill in one situation becomes an instrument of understanding and dealing effectively with the situations which follow" (Dewey, 1938, p. 44). Finally, both experiential and transformative learning emphasize learning as process,

not product (Bruner, 1966). Again, this was clear in the EFL/P programs through the emphasis on personal development and learning rather than specific competencies (Daloz, 1986), with informal formative assessments, but no formal, summative assessments.

Consistent with the experiential and transformative learning models presented by Kolb (1984) and Mezirow (1991), respectively, the experience began by exploring Veterans' life experiences and existing understandings through the concrete experience of working with the horses. Through engagement in these concrete experiences of working with the horses, and with the guidance of the instructor and the counselor, the Veterans engaged in critical reflection of themselves and their worldview. They engaged in discourse with the equines, with the other Veterans, with the instructor and, in EFP classes, the counselor, and they reflected on the experience as they engaged in an interview with me. The experience with the equines was highly kinesthetic and, for some, emotional in nature, which Boyd and Myers (1988) identify as a catalyst for transformative learning. The human instructors and equines contributed to an environment ideal for transformative learning, as the Veterans perceived the environment to be safe and supportive, with care and trust, facilitating sensitive relationships among participants (human and equine) (Taylor, 1998) and opportunities to test and explore new perspectives (Taylor, 2008). The equines, in particular, helped the Veterans feel calm and present, which can further facilitate the learning process (again, human and equine) by managing the neurophysiological stress response (see McGreevy, 2004; Hariharan et al., 2014; Janik, 2007). Additionally, the instructor, counselor, and volunteers were equally willing to be vulnerable and demonstrate open-mindedness and willingness to also learn

and change (Cranton, 1994). Finally, the equine, counselor, and instructor facilitated critical reflection through questioning and dialogue (Taylor, 1998).

Connecting and reconnecting spoke to me as the most salient aspect of this experience, in that the connections seemed to be at the root of the learning and development – the transformation – that happened. Connections with the volunteers, instructor, and counselor helped create the welcoming, safe environment; the group setting facilitated connections with other Veterans; connections with the equines fulfilled many roles; the experience as a whole enabled Veterans to reconnect with themselves, as well as with individuals outside of the program. Several Veterans appreciated the group check-in because it offered perspective and helped them feel supported and not alone in their experiences. This supports the role of dialogue as crucial for the transformational learning process. Taylor (2009) emphasized the importance of dialogue "emphasizing relational and trustful communication" (p. 9), often "highly personal and self-disclosing" (Carter, 2002, p. 82), and providing consensual validation (Taylor, 2009, p. 9) as learners realized "they were not alone on this transformational journey" (Baumgartner, 2002, pp. 56-57). Additionally, the dialogue must be accurate, complete, free from coercion, distortion, and self-deception (Mezirow, 2000; Taylor, 2009). This was something Darla particularly touched on, reflecting on her experiences with Mike, and why she appreciated the addition of the counselor to the team. Darla saw the counselor as challenging the Veterans to challenge themselves in being honest with themselves and each other, which allowed them to make the most of their learning in this environment.

In this, Darla also touched on another element necessary for transformative learning: challenge. Discomfort is required for discovery (Janik, 2005), as learners are

challenged to let go of old conceptualizations of self and the world (Daloz, 1986). Similarly, in a group learning environment, lack of asking critical questions and challenging one another was seen as a barrier to transformation (Ziegler, Paulus, & Woodside, 2006). Veterans felt challenged both in terms of learning a new skill set in working with the equines and challenging their own ideas and beliefs, though provided with the safe learning space, scaffolding, and tools for success through the equines, the instructor and, when relevant, the counselor and volunteers. "The physical challenge meets the emotional ones, and then it's really powerful. But it would be the easier path in a lot of ways to just not add that emotional element into it" (Darla). Again, this embodies Boyd and Myers (1988) notion that emotional and kinesthetic components of an experience are even more crucial than a rational component as a catalyst for change.

Contributing to the kinesthetic aspect of the experience, interacting with the equines provided a very literal, concrete connection. Activities like grooming and touching, breathing, and the physical sensations of riding. Such activities helped the Veterans feel present, centered, and aware, possibly contributing to their readiness and openness to learning. This seemed to elevate self-awareness, which included immediate awareness of physical sensations, thoughts, and emotions, and extended through reflection to include a broader sense of self-awareness, being aware of impact of self on others, such as relating personal behaviors to the response of equine partners, and recognizing different possible selves. For example Jennifer expressed wanting to treat herself with the same compassion she showed Mischief, and felt empowered during her round pen work with Lola, affirming "yeah, you know what? I'm good...I deserve to be listened to," suggesting some perspective transformation.

Briefly noted above, the opportunity to support and challenge each other was important in the Veterans' development. These social connections with the equines and other Veterans contributed to their development in other ways, and particularly reflected the opportunity to express caring and nurturing, which, in turn, contributed to the sense of purpose identified by several of the Veterans. This applied to caring for each other, such as Jasmine and Tyler feeling good about at least providing an ear for other Veterans, and caring for the equines, such as Darla expressing the idea of giving back to the horses through grooming, "if I'm the one person this horse hangs out with today, at least I feel like he's got loved on, he's gotten some attention, some affection, and I think they need that, too." Again, this is consistent with related literature on the perceived value of the human-animal bond. As Beck and Katcher (1996) explain, "the little acts of caring...and the sum of the acts leaves the caregiver with the feeling that he or she is needed. The reciprocal feelings of caring for something and being needed are lines that can hold us to life" (p. 57). This furthered development of compassionate relationships with self and others⁵, which Veterans began to notice in their daily lives.

Veterans reflected on the influence of their equine experiences in their daily lives in terms of knowledge and skills directly related to horses, as well as concepts and skills gained through their experiences with horses but applicable in other ways. Several Veterans had the goal of learning enough about horses to one day own one. Daniel and Tyler observed that they now noticed and thought about horses that they saw in other contexts, and Daniel was able to use his equine knowledge in his role volunteering with

⁵ Boyd and Myers (1988) specifically note greater interdependence and compassionate relationships with other people. I am truncating this to include interdependence and compassionate relationships with "others" meaning other living beings, human or non-human.

another therapeutic riding program. Jennifer found herself visualizing and practicing skills such as her riding posture in her everyday life, even using this as a way to "relax...refocus and calm down from the day." Similarly, she observed herself forming connections among various experiences in her life, such as noticing the relevance of breathing and grounding with the horses and in yoga therapy. In fact, the equine experiences were one part of Jennifer's "more holistic, more spiritual type of approach to my healing [which] has been so much more helpful than the traditional processing and journaling and all that stuff." Other Veterans also noticed transferability of skill sets, knowledge, and experiences gained through the program in other areas of their lives, such as Tyler and Mary integrating strategies to manage their anxiety. Several reflected on shifting dynamics in interactions with family members and significant others, and Mary reflected that working through her anxiety positively impacted her dogs' wellbeing, relating back to the notion of interconnectedness and compassion toward others. This aligns with humanistic and experiential learning ideals of holistic integration, with equine experiences being one component, and the transformative learning desired outcome of greater interdependence and compassionate relationships with others (Boyd & Myers, 1988), further supporting equine experiences as facilitating transformative learning.

Finally, Boyd and Myers (1988) asserted that grieving is a critical phase of transformational learning, as learners' old patterns of thinking, perceiving, and behaving give way to new patterns. Several Veterans alluded to a similar idea in talking about transitioning out of the military, realizing "you can't just go back to who you were before because you're never going to be that person again" (Darla) and a need to adjust to their "new normal" (Matt). However, exploring and allowing opportunities for grieving both

the person they were prior to their military experience and the person they were prior to their equine experiences was not directly addressed in any of the classes. Nor is it something I have come across in the AAI literature. There are suggestions for incorporating AAI into the grieving process in terms of grieving external loss. For example, Parshall (2003) interviewed a grief counselor who noticed clients often related to her dog when talking about their grief, but this was typically related to grief over the loss of a loved one. Similarly Glazer, Clark, and Stein (2004) examined therapeutic riding for children mourning the death of a family member, reporting improvements in trust, confidence, self-esteem, and communication skills, including talking about the deceased. There are also recommendations for dealing with loss of a program animal with participants. However, little research has considered the role of AAI in grieving over loss of self and recognition of new self during this transformative experience.

Additional Reflections

Group integration posed a few challenges, especially when one or two new Veterans joined an existing group of more experienced Veterans. One Veteran changed to a different class due to not feeling welcomed into the group. Another remained with the group, but "almost felt out of place; all the other [Veterans] seem[ed] to have much more experience around horses than I did." The counselor and volunteers also noticed a split during the riding portion of the men's group, in particular, which seemed related to horsemanship goals and experience. The Veterans did express appreciation of the group segregation by sex, including both those who had had experienced integrated groups (Darla, Jennifer, Mary, Daniel, Mike, and Tyler) and a those who had experienced only the segregated groups (Gena, Jasmine, and Matt). Jennifer and Gena expressed they

wouldn't mind having men in the group, but it was nice having so many women involved, coming from an environment dominated by men. The influence of group composition and dynamics has not received much attention within the context of AAI. Many AAI research studies involved group models, but the foci of these studies were human interactions with the animal(s) and individual outcomes; there was little attention to interpersonal human dynamics.

Another idea not often addressed in the literature is the extent to which programs and experiences such as these become a part of participants' lives and even personal identities. For those Veterans who returned for more than one session, the breaks between sessions were difficult to navigate. Some reported feeling "lost" without their regularly-scheduled Friday activity and missing the connection with the horses and fellow Veterans. Further, those who returned for the next session felt the break somewhat interrupted their development and created a need to reestablish connection with the equines, each other, and themselves. Each expressed understanding the equines' need for a break, but would embrace opportunities to stay involved during the times off.

In the EFP classes, there did seem to be a disconnect between the discussions taking place during the check-in and the equine activities, which some of the Veterans confirmed when I asked about their perceptions during interviews. This could pose a limitation to the transformative nature of the experience, though too closely directing the equine experiences based on the check-in conversation could also inhibit the transformative potential. As Janik (2005) expressed, "transformational learning, in fact, occurs entirely within the learner, without the assistance of a teacher (teachers are often said by learners to 'get in the way' of transformational learning)" (p. 144-145). In this

sense, the most effective learning might occur when Veteran and equine are left to engage in the interactions independently, and the instructor and counselor facilitate the interactions, offer support and guidance when needed, and prompt reflection, but without too closely directing the Veteran toward any particular responses. Somewhat related to this, the Veterans in this program appreciated the flexibility of the program to be what they needed it to be, enabling self-directed learning and supporting development of that internal locus of control without feeling rushed. However, practitioners should be aware that this flexibility might be perceived by some active duty and Veteran service members as disorganized, which presents a stark contrast to the highly organized military environment (Rumann & Hamrick, 2010).

Implications

Overall, the outcomes of this project support the efficacy of experiential programs with equines for Veterans. In program, guided by humanistic education and psychotherapy ideals, Veterans demonstrated elements of engaging in transformative learning and most expressed a significant perspective shift. Favorite elements of the program included the opportunity to connect with the horses, to connect with other Veterans, and to work with fellow Veteran/equine pairs, such as through drill team exercises. Veterans also appreciated the relaxed environment with opportunities to direct their own learning and activities. The experience similarly seemed to be a positive one for most of the equines involved in the program, though practitioners should closely monitor their wellbeing, and encourage the Veterans to do so, as the equine's partner. Based on these outcomes, there are several implications for the field.

Many practitioners shy away from offering EFP, concerned that active duty and Veteran service members don't want therapy (or more therapy). It seemed true that recruiting participants could have proven challenging if marketing the program as "psychotherapy." Daniel reinforced this concept, noting he would not have chosen to participate if the program was presented as group therapy (i.e., hanging out in a barn with other Veterans and a therapist). However, once established, the Veterans enjoyed and appreciated the class structure and involvement of the counselor, some feeling it was the counseling aspect that contributed to their wellbeing and development more than any other aspect, including the horses. Elements of the EFP model, such as engaging in group reflection, facilitated the transformative learning process. Mary, who participated in EFL and EFP models, reflected that, even in the EFL setting, she appreciated taking a few minutes to check in as a group at the start of class so she did not have to repeat her story each time an instructor or fellow Veteran asked her how she was doing that day; Tyler appreciated less porch time, more horse time. Related to this, the Veterans appreciated the opportunity to learn more information about PTS, the brain's response to traumatic events, nutrition, sleep, and other wellness topics, as these discussions aided with self-awareness, self-understanding, and developing coping strategies. Active duty and Veteran service members in other contexts have similarly valued learning information relevant to them, such as Veteran students learning about similar topics in psychology classes (Rumann & Hamrick, 2010). This suggests a group check-in might be beneficial for any class, even if done in the company of the horses, as suggested by Tyler and Jennifer. In sum, while bearing in mind the importance of facilitating what is within our means and comfort zones, practitioners wary of the psychotherapy aspect might reconsider the

potential benefits, or at least be mindful and take advantage of opportunities for transformative learning, such as encouraging some critical reflection through thoughtful questioning or group processing, if not already doing so.

Given the perceived disconnect between some of the porch-time discussions/reflections and the equine activities, it might be worthwhile helping draw Veterans' attention to related aspects during the equine activities, or keeping a brief check-in at the start of class, and then taking more time to discuss and reflect afterward, though this could interfere with the perception of having a relaxed schedule if Veterans are concerned about talking too much or not talking because they need to leave. Practitioners might also experiment with group make-up, considering offering (and researchers might consider exploring) groups geared toward different populations, whether based on sex, based on certain personal or horsemanship goals, or even based on riding skill level. This is not always possible depending on center resource, and there are certainly benefits and limitations to any arrangement, but options – and the opportunity to choose – might appeal to some Veterans and might prevent or mitigate some potential feelings of disconnect. When not possible, the instructor should remain aware of the dynamic and might need some finesse to create – or encourage the Veterans to create – an inclusive environment. Finally, consistent with feedback from other Veterans programs, participating Veterans might appreciate opportunities to more fully integrate the experience in their lives, whether that mean opportunities to volunteer with the center outside of the class, or opportunities to bring family members, friends, or others involved in their lives share in the experience.

There is considerable need for continuing research in this field, relevant to all aspects, from equine care to Veteran outcomes to volunteer and instructor preparation to program design and implementation. With regard to assessing outcomes for the participants (Veterans), this group of Veterans expressed frustration with self-report, number-based surveys. Therefore, how else might researchers assess such programs? This could also be a good opportunity to bring in research assistants or interns to help collect data. Additionally, many centers are developing their own assessment tools as needed, but introducing or working together to develop reliable, valid, trustworthy assessment strategies would benefit practitioners and researchers. Further, this is an opportunity to broaden what is being assessed. For example, mood, anxiety, depression, and PTSD symptoms are frequently of interest. However, issues that stood out through my time with the Veterans in this project included perceived connectedness and relationships (on and off site), trust, self-compassion, self-care, locus of control or this idea of power (without force), tools or strategies for communication and anxiety (so in addition to assessing if one feels less anxious, determining if one has gained strategies to manage anxiety), and a shift in perspective, related to equines and to themselves.

As far as implications for Veterans, and organizations that work with Veterans, this EAAT experience was valuable for each Veteran. Tyler would tell other Veterans, "put [your] pride aside...give it a chance. It's done wonders for me in just a short amount of time." Funding, however, is a major concern for many riding centers, as they tend to be non-profit organizations, and came to be a concern for some of the participating Veterans, to the point it impacted Darla's experience, as she wondered "who needs this the most? There's only so much money...all of that kind of is in the background for me

and it's made it tough to keep coming out here...not wanting to overstay my welcome...I wonder what that's costing everybody." Limited funding is available through some organizations and under certain circumstances, such as the Wounded Warrior Project. If programs like this one are to continue, additional sources of funding are needed, especially as many centers offer their services free of charge to active duty and Veteran service members. And it seems that, at least to the participating Veterans, this program and others like it are worth the investment, "they should offer it to as many Veterans as they can because it does help" (Jasmine), "if they're at least willing to pay for one Vet to go one time, that's still a lot" (Mary). Further, it might be difficult to put a cap on funding, in the way insurance companies will provide for a certain number of chiropractic visits each year. As Darla expressed "I don't think [Vets] can hammer out everything they need to in, like, a 10-week session and then be done." This is also worth considering on the part of centers and researchers – be careful touting EAAT as promoting rapid results. Even if it encourages growth sooner than more traditional therapeutic approaches, such claims might be used to justify strict funding.

In terms of implications for or recommendations on behalf of the equines, I feel many are consistent with current industry practices, such as the importance of monitoring equine wellness, allowing for free time, providing pasture turnout when available, and addressing the root of any behavioral concerns. Above all, while it is important to understand general equine nature, it is equally important to recognize each equine as a unique individual, with differing needs and preferences (e.g., König von Borstel & Keil, 2012). With this, I recommend emphasizing the human-equine dynamic in environments such as this, encouraging awareness of and attention to the equines, being mindful and

taking advantage of learning opportunities presented by the equines, and helping the Veteran become the activist on behalf of their equine partner. This might deviate from the day's lesson plan, but can benefit the equine by making sure someone is always in tune with their state of being and willing to adapt to meet their needs.

Similarly, if possible, it could be beneficial to have certain volunteers consistently work with certain equines, and to have anyone handling the equines trained in the same way, according to center policies. This way, the equines have consistent handling and expectations, and someone familiar with their uniquenesses looking out for their wellbeing, which can make them more comfortable. There was value in both ground and mounted activities for Veteran and equine, and incorporating ground activities could take some of the pressure (literally and figuratively) off the equines, and, again, facilitate that connection and communication with the Veteran. Like the Veterans, the equines might appreciate some choice in activity, or at least consideration in matching equine and Veteran preferences and interest, as some equines prefer routine and others like variety; some are comfortable in an arena all day, and others prefer wandering the trails.

Touching on an issue much larger than the scope of this program, I noticed some language in open-ended survey responses and interviews about the horse "being a great tool" and learning to "command" the horse. I think it would benefit the equines and the industry to further explore the perceptions at the root of this language, though this exploration delves into complex arguments going back to the nature of human-animal interactions.

Limitations and Future Directions

This study focuses on the experiences of a self-selecting population of 12 Veterans participating in a particular EFL/P program at a particular therapeutic riding center, explored primarily through a qualitative process. At least some data were missing for each Veteran, be it the intake and/or exit survey, volunteer observations, or interview. Data were especially limited for Josh and Jim, and in that I was only able to conduct one interview at the end of Session III. This could limit my perspective of the Veterans' experiences, especially in Josh's case, because I did not have the opportunity to learn why he discontinued participation in Session II. Similarly, there were four Veterans who had expressed interest in the program, even submitted their enrollment packs, but never came back to participate. Furthermore, the observations incorporated into the representations of Veteran and equine experiences are based their participation in these particular classes; the influence of the program beyond the context of the class is unknown, aside from Veterans' self-reports. Finally, though I was able to confirm my findings and (re)presentations with the Veterans, I am limited in my ability to understand and speak on behalf of the equines. Even in seeking feedback from experienced horsewomen, the representation of their experience is still filtered through human voice:

One major problem with trying to understand, translate, and put into words the thoughts and conceptions of animals...humans, from a position of superiority, can either choose to ignore what animals are saying, making them silent, or can interpret for them, which runs the risk of doing so from the human point of view. (DeMello, 2013, pp. 4-5)

These points introduce many opportunities for future directions with related research and practice.

First, self-selection is an inherent aspect AAI research; it is difficult, therefore, to employ true experimental design, though many researchers are randomly assigning self-

selecting populations to an equine (experimental) condition or a control group, which might be a waitlist control with delayed participation in equine activities, or might participate in alternate learning and therapeutic activities. I am interested in further exploring some comparisons between equine activities and alternate (or even complimentary) activities, though non-intervention waitlist controls presents an ethical dilemma in that, if individuals are interested in immediate participation, in essence reaching out for help, delaying participation might be frustrating and possibly reduce the rate of participation when the program does begin.

Second, it would be valuable to collect complete data sets from all Veterans throughout the duration of their participation in the program for a more complete perspective, and to conduct follow-ups with Veterans after they leave the program to see if they perceive long-lasting impacts of participation. In maintaining contact with several of the Veterans in the current study, I have learned about some of the consequent developments in their lives, and some, like Gena, confirmed sentiments that the program "changed my life" when they provided their feedback regarding my (re)presentations of their experiences, but it would be valuable to formalize this process. I would also like to follow up with those who, like Josh, discontinue participation, or enroll but do not return, in order to address potential barriers to participation.

Third, the Veterans who did participate were not directly presented a choice of the group in which they would participate in terms of the EFL or EFP model, though they weren't prevented by the center from shifting to a TR class, as Russ chose. This is common among similar programs, offering programs based on resources and beliefs/comforts center staff – a strength in that it leads to areas of specialization.

However, it could be worthwhile exploring varying curricula and approaches to identify similarities and differences in approaches and effectiveness, from the perspectives of the Veterans (or active duty service members), personnel, and equines involved. Even with this study, my intent was to incorporate more volunteer and instructor perspectives.

Fourth, there is room to go into much greater depth considering the participating equines and related practices, based both on this study and in reflecting on the field, as a whole. In what ways is this experience rewarding for equines, and in what ways is it stressful? How are we determining this? Agencies like PATH Intl. and EAGALA develop mission statements and standards and prescribe best practices in terms of equine care, management, and incorporation into learning and therapeutic environments, but how do these actually play out? What does this look (and feel) like for the equines? And how does this vary across equines and across programs? In what ways are equines integrated into programs (are humans successful in integrating them as partners, or are we, in fact, using them as "tools"), what are equines communicating, and how do individuals working with the equines interpret and respond to what equines are communicating? Are industry standards adequate, and is the educational process adequate, both in terms of what instructors and industry personnel are learning, and, in turn, what participants are learning from instructors and other industry personnel?

Fifth, as other researchers have begun to explore, integrating additional assessments of both human and equine participants could further understanding and offer a broader perspective of the experience. In addition to behavioral observations and self-report measures (for the humans), researchers might assess physiological responses via heart rate and cortisol immediately before, during, and following classes, as Wharton et

al. (2005) have recently done. This could extend beyond the context of the classes to explore lasting impacts on participants and equines, again, through physiological measures and observations. For example, following the example of Pendry et al. (2014), average daily cortisol levels, heart rate, and blood pressure might be examined. Participants' family members or friends might be interviewed or asked to fill out observational surveys regarding the participants' daily behaviors. For participating equines, personnel who are familiar with the equine might similarly complete observational reports regarding perceived mood, performance in daily habits and activities, and researchers might note any anomalies, such as incident reports on file, changes in eating habits, changes in social interactions, and changes in physical wellbeing.

Finally, as noted in the implications section, stakeholders such as researchers, students, practitioners, participants, and equines could benefit from further collaborations and coming-together to share ideas, discuss best practices for issues related to teaching future (and current) instructors, informing volunteers, working with the Veterans, working with the equines, and, as with any learning environment, issues of assessment. Related to this, although I focused on the psychocritical, psychoanalytic, psychodevelopmental transformative learning perspectives, there is expansive potential to consider such interactions from other learning and psychotherapy perspectives, transformative and otherwise.

My Transformative Experience

A key characteristic of heuristic inquiry is "the transformative effect of [heuristic inquiry] on the researcher's own experience" (Hiles, 2008, p. 390). This process has

impacted my view of Veterans, EAAT, and myself. As a result of my participation, I was motivated to pursue PATH Intl. certification first as an Equine Specialist in Mental Health and Learning (ESMHL), and then as a Registered-Level Therapeutic Riding Instructor, both so I could learn more about industry standards, practices, and possibilities, and also because I began to see myself enacting these practices with others. This is something I could see myself doing. Another motivating factor was my observations of the equines, the human-equine interactions, and my observations of different individuals' ways of addressing these interactions. I realized I have been primed to notice the equine and to consider the complex interactions between human and equine, particularly noticing my impact on the equine, the equine's impact on me, and the overall relationship dynamics. As I observed classes, I found myself learning new information and strategies, and reflecting on what I might do differently, also recognizing "differently" might not be "better." Specifically, I sometimes grew frustrated at what I perceived to be a lack of focus on the horse and the human-equine relationship, which revealed a lot to me about my ideas about horsemanship and working with horses. I could relate to Tyler the day he was visibly growing impatient with the check-in, and felt that at times there was disconnect between the work on the human and the time with the horses. In noticing this internal dissonance, I realized I had progressed from merely soaking in information to reflecting critically and forming opinions.

I was also reminded through this research journey that no one approach is best, and my own beliefs were challenged in that the participating Veterans predominantly appreciated the format of the classes – they appreciated all the components, and they appreciated that it didn't feel rushed. So does it even matter that I felt there could (should)

have been more emphasis on the horses and human-horse relationship? The program is not for me, it's for the Veterans. And the way the program played out worked for these Veterans and seemed to provide what they wanted and needed. This realization actually gave me pause in deciding whether to pursue riding instructor certification. I had no hesitations pursuing the ESMHL certification. My responsibility as the equine specialist is the equine. I make decisions based on what is best for the equine, and help educate participants about and draw their attention to the equine. I am comfortable with that – I am comfortable with the equines. One of my hesitations in pursuing the riding instructor certification was feeling uncertain about my ability to work with the humans. I had heard that horsemen like Ray Hunt and Buck Brannaman could seem harsh, and experienced some of this in my own horsemanship learning, but coming from a sentiment that sometimes it's not about you (the human), it's about the horse and what is best for the horse. Although not an excuse to be inconsiderate of the human – Tom Dorrance is also credited with reminding, “Riders sometimes need to realize that horses need soothing, cuddling and comforting. Sometimes that isn't too bad for people either. They can use a little bit too” (from Wirgler, 2015) – I began to understand. It is remembering to keep focus and perspective around the horse and what I need to do in the interest of the horse and our relationship, not taking criticism personally (though also not making it personal in interacting with others), not letting ego get in the way, not throwing up my hands and walking away in frustration, and remembering to end on a good note for the horse, not continuing to push or drill for my own benefit. This means that some days, my lesson plan doesn't matter. Sure, I wanted to work on picking up our right lead after a jump, but what Ace needs is to know that the plastic bag that blew in overnight is not going to eat

him. Sometimes I might not even ride. Maybe all I do is ask him to drop his head and let me touch his ears. Maybe all we do is practice relaxing and, as my Mom says, watch the ants. How does this play out in the more formal, organized environments present (even expected) with EAAT? What might be my approach? What should be my approach? How do I balance the horse(s) and my ideas about horsemanship with the needs and expectations of the human participants, the program, and other stakeholders? These are questions I am still exploring, seeking ideas and information through other programs, instructors, participants, and research, considering perspectives and possibilities, and testing ideas when I have a chance. This issue also becomes important to consider in relation to program design, marketing, funding and research. Each organization should determine what is most appropriate based on their participants, program goals and desired outcomes, and resources. What is the best fit for the participants, equines, volunteers, staff, and center?

Additionally, coming out of this experience, I am more aware not only of my own beliefs and practices, but am more aware of the world around me. I am more aware and observant of equines. Even as I wrote the findings sections of the dissertation, interpreting equine body language and behaviors, I began noticing and comparing pictures of others' horses, pictures of performance horses on my calendar, pictures of my horses, and their behaviors in real life. This also reminded me how valuable it can be to have pictures or video of oneself for self-assessment – especially in riding. As Jennifer also observed, groundwork is helpful in that the person working the horse can see all the parts of my horse. But I didn't realize that Ace gets the same pointy "concentration" upper lip that I noticed in Lola with the different Veteran riders. And then I noticed it in several

pictures of high-performance dressage, jumping, and reining horses. Of course I then turned to literature to read about what tension in the upper lip might mean. Typically, tension is associated with distress, but many of these horses do not appear otherwise distressed. Alert, perhaps a touch of confusion or concern around the eyes in Lola's case, and requesting horses to maintain this level of concentration for prolonged periods of time could certainly lead to distress and burnout, much as it can with humans, but not distress.

My awareness of military culture and issues related to active duty and Veteran service members has grown exponentially. I have learned more than I have space to write. Part of becoming aware means I am painfully aware of how much I feel I don't know in this field, but has also encouraged me to seek opportunities to learn more, and is an area in which I would like to stay engaged.

Finally, I am more aware of the complex dynamics in EAAT settings and the potential of this context as a rich learning environment, as well as the importance of remaining present in and aware of the environment. As I reflect on one particular class during which the ground activity did not go at all as planned, I am also reminded how instructors' ideas of what "should be" and how lesson plans "should go" might sometimes get in the way of the learning experience; conversely, how being open and flexible can facilitate learning. I am aware that EAAT might not be the ideal approach for everyone, and am aware that EAAT and similar "alternative" learning environments and activities, especially in conjunction with ideas about learning such as experiential and transformative learning theories, are changing education as it is traditionally conceptualized. I am aware that there are so many other elements to consider and

questions that it makes my brain hurt, which is exactly where I should be coming out of this experience. Even to say "coming out" of this experience feels inaccurate, because I am also aware that this is in no way the end; "it is always in process of becoming" (Rogers, 1961, p. 27). And this is why I dance with my horses. It is part of my process of becoming. This is why I want to introduce the dance to others, offering suggestions for basic steps and then watching as the melody and rhythm become unique for particular human-equine partnerships.

References

- Abrams, B. N. (2013). *Exploring therapists' conceptions of equine facilitated/assisted psychotherapy for combat veterans experiencing posttraumatic stress disorder* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3569187)
- Albert, A., & Bulcroft, K. (1988). Pets, families, and the life course. *Journal of Marriage and Family*, 50(2), 543-552. <http://www.jstor.org/stable/352019>
- Alderfer, C. (1972). *Existence, relatedness, & growth*. New York, NY: Free press.
- Allen, K., Izzo, J., & Shykoff, B. (2001). Pet ownership, but not ACE inhibitor therapy blunts home blood pressure response to mental stress. *Hypertension*, 38, 815-820. <http://hyper.ahajournals.org/content/38/4/815>
- Aloni, N. (1997). A redefinition of liberal and humanistic education. *International Review of Education*, 43, 87-107. doi:10.1023/A:1002962614704
- Aloni, N. (2002). *Enhancing humanity: The philosophical foundations of humanistic education*. Philosophy and Education (Vol. 9). Dordrecht, Netherlands: Kluwer Academic Publishers.
- American Pet Products Association (2014). *U.S. pet industry spending figures & future outlook*. Retrieved from http://www.americanpetproducts.org/press_industrytrends.asp

- American Veterinary Medical Association (2014). The human-animal interaction and human-animal bond. Retrieved from <https://www.avma.org/KB/Policies/Pages/The-Human-Animal-Bond.aspx>
- Anthony, R. (2003). . The ethical implications of the human-animal bond on the farm. *Animal Welfare, 12*, 505-512
- Archer, J. (1997). Why do people love their pets? *Evolution and Human Behavior, 18*, 237-259. doi:[http://dx.doi.org/10.1016/S0162-3095\(99\)80001-4](http://dx.doi.org/10.1016/S0162-3095(99)80001-4)
- Arkow, P. (2010). Animal-assisted interventions and humane education: Opportunities for a more targeted focus. In A. H. Fine (Ed.), *Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice* (3rd ed.) (pp. 457-480). San Diego, CA: Elsevier.
- Army Mental Health Advisory Team (2008). *Operation Iraqi Freedom 06-08*. Retrieved from <http://armymedicine.mil/Documents/Redacted1-MHATV-OIF-4-FEB-2008Report.pdf>
- Ashley, W., & Constantine Brown, J. (2015). The impact of combat status on veterans' attitudes toward help seeking: The hierarchy of combat elitism. *Journal of Evidence-Informed Social Work, 00*, 1-9. doi: 10.1080/15433714.2014.992695
- Asselin, G., Penning, J. H., Ramanujan, S., Neri, R., & Ward, C. (2012). Therapeutic horse back riding of a spinal cord injured veteran: A case study. *Rehabilitative Nursing, 37*, 270-276. doi:10.1002/mj.027
- Association of Zoos and Aquariums (n.d.). *Visitor demographics*. Retrieved from <https://www.aza.org/visitor-demographics/>

- Athy, A. L. (2005). *Effects of a trained therapy dog in child-centered therapy on children's biobehavioral measures of anxiety* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3181032)
- Bachi, K., Terkel, J., & Teichman, M. (2012). Equine-facilitated psychotherapy for at-risk adolescents: The influence on self-image, self-control and trust. *Clinical Child Psychology and Psychiatry, 17*, 298-312. doi:10.1177/1359104511404177
- Bandura, A. (1986). *Social foundations of thought and action: A social-cognitive theory*. Upper Saddle River, NJ: Prentice-Hall.
- Banks, M. R., & Banks, W. (2002). The effects of animal-assisted therapy on loneliness in an elderly population in long-term care facilities. *Journal of Gerontology Series A: Biological Sciences and Medical Sciences, 57*, M428-M432.
doi:10.1093/gerona/57.7.M428
- Banks, M. R., & Banks, W. A. (2005). The effects of group and individual animal-assisted therapy on loneliness in residents of long-term care facilities. *Anthrozoos, 18*, 396-408. doi:10.2752/089279305785593983
- Barker, S. B., & Dawson, K. S. (1998). The effects of animal-assisted therapy on anxiety ratings of hospitalized psychiatric patients. *Psychiatric Services, 49*, 797-801.
<http://ps.psychiatryonline.org/article.aspx?articleID=81469>
- Barker, S.B., Knisely, J.S., McCain, N.L., & Best, A.M. (2005). Measuring stress and immune response in healthcare professionals following interaction with a therapy dog: A pilot study. *Psychological Reports, 96*, 713-729.
doi:10.2466/pr0.96.3.713-729

- Barker, S. G., Pandurangi, A. K., & Best, A. M. (2003). Effects of animal-assisted therapy on patients' anxiety, fear, and depression before ECT. *Journal of ECT*, *19*(1), 38-44. doi:10.1097/00124509-200303000-00008
- Barker, S. B., Rasmussen, K. G., & Best, A. M. (2003). Effect of aquariums on electroconvulsive therapy patients. *Anthrozoös*, *16*, 229-240. doi:10.2752/089279303786992071
- Barker, S. B., & Wolen, A. R. (2008). The benefits of human-companion animal interaction: A review. *Journal of Veterinary Medicine Education*, *35*, 487-495. doi:10.3138/jvme.35.4.487
- Bass, M. M., Duchowny, C. A., & Llabre, M. M. (2009). The effect of therapeutic horseback riding on social functioning in children with autism. *Journal of Autism and Developmental Disorders*, *39*, 1261–1267. doi:10.1007/s10803-009-0734-3
- Baumgartner, B. (2010). Re-membering pets: Documenting the meaning of people's relationships with these family members. *Explorations: An E-Journal of Narrative Practice*, *2*, 50-71. <http://www.dulwichcentre.com.au/explorations-2010-2-barbara-baumgartner.pdf>
- Baumgartner, L. M. (2002). Living and learning with HIV/AIDS: Transformational tales continued. *Adult Education Quarterly*, *53*, 44–70. doi:10.1177/074171302237203
- Bayne, K. (2002). Development of the human-research animal bond and its impact on animal well-being. *ILAR Journal*, *43*, 4-9. doi:10.1093/ilar.43.1.4
- Beck, A. M. & Katcher, A. H. (1996). *Between pets and people: The importance of animal companionship* (Rev. ed.). West Lafayette, IN: Purdue University Press.

- Beck, A. M., & Meyers, N. M. (1996). Health enhancement and companion animal ownership. *Annual Review of Public Health, 17*, 247-257.
doi:10.1146/annurev.pu.17.050196.001335
- Beder, J. (2012). Those who have served in Afghanistan/Iraq: Coming home. In J. Beder (Ed.), *Advances in social work practice with the military* (2nd ed.) (pp. 137-147). New York, NY: Routledge.
- Beder, J., Coe, R., & Sommer, D. (2011). Women and men who have served in Afghanistan/Iraq: Coming home. *Social Work in Health Care, 50*(7), 515-526.
doi:10.1080/00981389.2011.554279
- Beetz, A., Uvnäs-Moberg, K., Julius, H., Kotrschal, K. (2012). Psychosocial and psychophysiological effects of human-animal interactions: The possible role of oxytocin. *Frontiers in Psychology, 3*, 1-15. doi:10.3389/fpsyg.2012.00234
- Bekoff, M. (2007). *The emotional lives of animals: A leading scientist explores animal joy, sorrow, and empathy – and why they matter*. Novato, CA: New World Library.
- Bekoff, M. (2013). *Why dogs hump and bees get depressed: The fascinating science of animal intelligence, emotions, friendship, and conservation*. Novato, CA: New World Library.
- Berget, B., Ekeberg, Ø., & Braastad, B. O. (2008). Animal-assisted therapy with farm animals for persons with psychiatric disorders: Effects on self-efficacy, coping ability, quality of life, a randomized controlled trial. *Clinical Practice and Epidemiology in Mental Health, 4*(9). Retrieved from <http://www.cpementalhealth.com/content/4/1/9>. doi:10.1186/1745-0179-4-9

- Berget, B., Ekeberg, Ø., Pedersen, I., & Braastad, B. O. (2011). Animal-assisted therapy with farm animals for persons with psychiatric disorders: Effects on anxiety and depression, a randomized controlled trial. *Occupational Therapy in Mental Health, 27*(1), 50-64. doi:10.1080/0164212X.2011.543641
- Berget, B., Skarsaune, I., Ekeberg, Ø., & Braastad, B. O. (2007). Humans with mental disorders working with farm animals: A behavioral study. *Occupational Therapy in Mental Health, 23*(2), 101-117. doi:10.1300/J004v23n02_05
- Bernstein, R. J. (1983). *Beyond objectivism and relativism: Science, hermeneutics, and praxis*. Philadelphia, PA: University of Pennsylvania Press.
- Birke, L. (2007). "Learning to speak horse": The culture of "natural horsemanship." *Society & Animals, 15*, 217-239. doi:10.1163/156853007X217177
- Birke, L. (2008). Talking about horses: Control and freedom in the world of "natural horsemanship." *Society & Animals, 16*, 107-126.
doi:10.1163/156853008X291417
- Birke, L., & Brandt, K. (2009). Mutual corporeality: Gender and human/horse relationships. *Women's Studies International Forum, 32*, 189-197.
doi:10.1016/j.wsif.2009.05.015
- Birke, L., Bryld, M., & Lykke, N. (2004). Animal performances: An exploration of intersections between feminist science studies and studies of human/animal relationships. *Feminist Theory, 5*, 167-183. doi:10.1177/1464700104045406
- Birke, L., Hockenhul, J., Creighton, E., Pinno, L., Mee, J., & Mills, D. (2011). Horses' responses to variation in human approach. *Applied Animal Behaviour Science, 134*, 56-63. doi:10.1016/j.applanim.2011.06.002

Bizub, A. L., Joy, A., & Davidson, L. (2003). "It's like being in another world":

Demonstrating the benefits of therapeutic horseback riding for individuals with psychiatric disability. *Psychiatric Rehabilitation Journal*, 26, 377-384.

<http://dx.doi.org/10.2975/26.2003.377.384>

Boyd, R. D., & Myers, J. G. (1988). Transformative education. *International Journal of Lifelong Education*, 7, 261-284.

Braje, T. J. (2011). The human-animal experience in deep historical perspective. In C. Blazina, G. Boyraz, & D. Shen-Miller (Eds.), *The psychology of the human-animal bond: A resource for clinicians and researchers* (pp. 63-8.0). New York, NY: Springer.

Brannaman, B. (2009). *Groundwork: The first impression*. Westlake Village, CA: Rancho Delux Design.

Braun, C., Stangler, T., Narveson, J., & Pettingell, S. (2009). Animal-assisted therapy as a pain relief intervention for children. *Complementary Therapies in Clinical Practice*, 15, 105-109. doi:10.1016/j.ctcp.2009.02.008

Bridgman, P. W. (1950). *Reflections of a physicist*. New York, NY: Philosophical Library.

Brooks, A. (2000). Cultures of Transformation." In A. L. Wilson and E. R. Hayes (Eds.), *Handbook of adult and continuing education*. San Francisco, CA: Jossey-Bass.

Bruner, J. S. (1966). *Toward a theory of instruction*. Cambridge, MA: Belkapp Press

Bruner, V. E., & Woll, P. (2012). The battle within: Understanding the physiology of warzone exposure. In J. Beder (Ed.), *Advances in social work practice with the military* (2nd ed.) (pp. 119-134). New York, NY: Routledge.

- Bryant, B. K. (1985). The neighborhood walk. A study of sources of support in middle childhood from child's perspective. *Monographs of the Society for Research in Child Development*, 50(3), 1-122.
- Bryant, J. O. (2006). *The USDF guide to dressage: The official guide of the United States Dressage Federation*. North Adams, MA: Storey Publishing.
- Buber, M. (1958). *I and thou* (2nd ed.). (R. G. Smith, Trans.). New York, NY: Scribner. (Original work published 1923)
- Buber, M. (1991). *Tales of the Hasidim: The early masters*. (O. Marx). New York, NY: Pantheon. (Original work published in 1947)
- Buber, M. (1965). *The knowledge of man*. (M.Freedman & R. G. Smith, Trans.). New York, NY: Harper.
- Burgess, (1997). *Animal assisted therapy and the enhancement of mood in elderly nursing home residents* (Master's thesis). Retrieved from ProQuest Dissertations and Theses. (UMI No. 1385516)
- Burgon, H. L. (2011). "Queen of the world": Experiences of "at-risk" young people participating in equine-assisted learning/therapy. *Journal of Social Work Practice*, 25, 165-183. doi:10.1080/02650533.2011.561304
- Carlson, E. B., & Ruzek, J. (2014, January 3). *PTSD and the family*. Retrieved from <http://www.ptsd.va.gov/professional/treatment/family/ptsd-and-the-family.asp>
- Carter, T. J. (2002) The importance of talk to midcareer women's development: A collaborative inquiry. *The Journal of Business Communication*, 39, 55-91. doi:10.1177/002194360203900104

- Cawley, R., Cawley, D., & Reiter, K. (1994). Therapeutic horseback riding and self-concept in adolescents with special education needs. *Anthrozoös* 7, 129-134.
doi:10.2752/089279394787001934
- Chandler, C. (2001). *Animal-assisted therapy in counseling and school settings*. ERIC Digest EDO-CG-01-05. Greensboro, NC: ERIC Clearinghouse on Counseling and Student Services Greensboro NC. (ERIC Document Reproduction Service No. ED459404)
- Chandler, C. K. (2005). *Animal assisted therapy in counseling*. New York, NY: Routledge.
- Chandler, C. K. (2012). *Animal assisted therapy in counseling* (2nd ed.). New York, NY: Routledge.
- Chang, F. T., & Hart, L. A. (2002). The human-animal bond in the laboratory: How animal behavior affects the perspectives of caregivers. *ILAR Journal*, 43, 10-18.
doi:10.1093/ilar.43.1.10
- Chardonnens, E. (2009). The use of animals as co-therapists on a farm: The child-horse bond in person-centered equine assisted psychotherapy. *Person-Centered and Experiential Psychotherapies*, 8, 319-332. doi:10.1080/14779757.2009.9688496
- Charles, N. (2014). 'Animals just love you as you are': Experiencing kinship across the species barrier. *Sociology*, 48, 715-730. doi:10.1177/0038038513515353
- Charnetski, C. J., Riggers, S., & Brennan, F. X. (2004). Effect of petting a dog on immune functioning. *Psychological Reports*, 3, 1087-1091.
doi:10.2466/pr0.95.3f.1087-1091

- Chen, W., & Hirschheim, R. (2004). A paradigmatic and methodological examination of information systems research from 191 to 2001. *Information Systems Journal*, *14*, 197-234. doi:10.1111/j.1365-2575.2004.00173.x
- Clutton-Brock, J. (1992). *Horse power: A history of the horse and the donkey in human societies*. Cambridge, MA: Harvard University Press.
- Cody, P., Steiker, H. L., & Szymandera, M. L. (2011). Equine therapy: Substance abusers' "healing through horses." *Journal of Social Work Practice in the Addictions*, *11*, 198-204. doi:10.1080/1533256X.2011.571189
- Cohen, S. P. (2002). Can pets function as family members? *Western Journal of Nursing Research*, *24*, 621-638. doi:10.1177/019394502320555386
- Cohen, B. E., Gima, K., Bertenthal, D., Kim, S., Marmar, C. R., & Seal, K. H. (2010). Mental health diagnoses and utilization of VA non-mental health medical services among returning Iraq and Afghanistan veterans. *Journal of General Internal Medicine*, *25*, 18-24. doi:10.1007/s11606-009-1117-3
- Cole, K. M., Gawlinski, A., Steers, N., & Kotlerman, J. (2007). Animal-assisted therapy in patients hospitalized with heart failure. *American Journal of Critical Care*, *16*, 575-585.
- Coll, J. E., Weiss, E. L., & Yarvis, J. S. (2008). No one leaves unchanged—insights for civilian mental health care. In J. Beder (Ed.), *Advances in social work practice with the military* (pp. 18-33). New York, NY: Routledge.
- Cooper, J. J., & Albentosa, M. J. (2003). Behavioural adaptation in the domestic horse: Potential role of apparently abnormal responses including stereotypic behaviour. *Livestock Production Science*, *92*, 177-182. doi:10.1016/j.livprodsci.2004.11.017

- Cooper, J., & McGreevy, P. (2007). Stereotypic behaviour in the stabled horse: Causes, effects and prevention without compromising horse welfare. In N. Waran (Ed.), *The welfare of horses* (pp. 99-124). Dordrecht, Netherlands: Springer.
- Copeland, M. (2013). "Straight from the horse's mouth": Equine memoirs and autobiographies. In M. DeMello (Ed.), *Speaking for animals: Animal autobiographical writing* (pp. 179-191). New York, NY: Taylor & Francis.
- Cranton, P. (2000). Individual differences and transformative learning. In J. Mezirow & Associates (Eds.), *Learning as transformation*. San Francisco, CA: Jossey-Bass.
- Creswell, J.W. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Crotty, M. (2003). *The foundations of social research: Meaning and perspective in the research process*. Thousand Oaks, CA: Sage Publications. (Original work published in 1998)
- Cusack, O. (1988). *Pets and mental health*. New York, NY: Haworth Press.
- Dabelko-Schoeny, H., Phillips, G., Darrough, E., DeAnna, S., Jarden, M., Johnson, D., & Lorch, G. (2014). Equine-assisted intervention for people with dementia. *Anthrozoös*, 27, 141-155. doi:10.2752/175303714X13837396326611
- Dahn, V. L. (2008). Silent service in the soldier's shadow. *Counseling Today*, 51(4), 55-57.
- Daloz, L. (1986). *Effective Teaching and Mentoring: Realizing the Transformational Power of Adult Learning Experiences*. San Francisco, CA: Jossey-Bass.

- Daly, B., & Morton, L. L. (2006). An investigation of human-animal interactions and empathy as related to pet preference, ownership, attachment, and attitudes in children. *Anthrozoös, 19*, 113-127. doi:10.2752/089279306785593801
- Davis, J. H. (1987). Preadolescent self-concept development and pet ownership. *Anthrozoös, 1*, 90-94. doi:10.2752/089279388787058614
- DeGeorge, R. T. (1987). A code of ethics for officers. In M. M. Wakin & J. Kempf, *Military ethics: Reflections on principles – the profession of arms, military leadership, ethical practices, war and morality, educating the citizen-soldier* (pp. 13-29). Washington, DC: National Defense University Press.
- Demello, L. R. (1999). The effect of the presence of a companion-animal on physiological changes following the termination of cognitive stressors. *Psychology & Health, 14*, 859-868. doi:10.1080/08870449908407352
- DeMello, M. (2013). Introduction. In M. DeMello (Ed.), *Speaking for animals: Animal autobiographical writing* (pp. 1-14). New York, NY: Taylor & Francis.
- Denzin, N. K., & Lincoln, Y.S. (1994). Part II: Major paradigms and perspectives. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 99-104). Thousand Oaks, CA: Sage Publications.
- Dewey, J. (1952). *Experience and education*. New York: The Macmillan Company.
(Original work published 1938)
- Dincauze, D. F. (2000). *Environmental archaeology: Principles and practice*. New York, NY: Cambridge University Press.
- Dirkx, J. M. (1997). Nurturing soul in adult learning. In P. Cranton (Ed.), *Transformative learning in action*. San Francisco, CA: Jossey-Bass.

- Dirkx, J. M. (2000). *Transformative learning and the journey of individuation*. ERIC Digest No. 223. Retrieved from ERIC database. (ED448305)
- Dirkx, J. M., Mezirow, J., & Cranton, P. (2006). Musings and reflections on the meaning, context, and process of transformative learning: A dialogue between John M. Dirkx and Jack Mezirow. *Journal of Transformative Education*, 4, 123-139. doi:10.1177/1541344606287503
- Dorrance, B., & Desmond, L. (1999). Guilford, CT: Lyons Press.
- Douglass, B. G., & Moustakas, C. (1985). Heuristic inquiry: The internal search to know. *Journal of Humanistic Psychology*, 25(3), 39-55. doi:10.1177/0022167885253004
- Eatough, V., & Smith, J. A. (2008). Interpretative phenomenological analysis. In C. Willing & W. Stainton-Rogers (Eds.), *Handbook of qualitative research in psychology* (pp. 179-194). Thousand Oaks, CA: Sage Publications.
- Eisen, M. J. (2001). Peer-based professional development viewed through the lens of transformative learning. *Holistic Nursing Practice*, 16, 30-42. doi:10.1097/00004650-200110000-00008
- Ellingson, L. L. (2009). *Engaging in crystallization in qualitative research*. Thousand Oaks, CA: Sage Publications.
- Elbogen, E. B., Wagner, H. R., Johnson, S. C., Kinneer, P., Kang, H., Vasterling, J. J., ... Beckham, J. C. (2013). Are Iraq and Afghanistan veterans using mental health services? New data from a national random-sample survey. *Psychiatric Services*, 64, 134-141. doi:10.1176/appi.ps.004792011

- Endenburg, N., & Baarda, B. (1995). The role of pets in enhancing human well-being: Effects on child development. In I. Robinson (Ed.), *The Waltham book of human-animal interaction: Benefits and responsibilities* (pp. 7-17). Tarrytown, NY: Elsevier Science.
- Endenburg, N., & van Lith, H. A. (2011). The influence of animals on the development of children. *Veterinary Journal*, *190*, 208-214. doi:10.1016/j.tvjl.2010.11.020
- Erber, R., Wulf, M., Aurich, J., Rose-Meierhöfer, S., Hoffmann, G., von Lewinski, M., Möstl, E., & Aurich, C. (2013). Stress response of three-year-old horse mares to changes in husbandry system during initial equestrian training. *Journal of Equine Veterinary Science*, *33*, 1088-1094. doi:10.1016/j.jevs.2013.04.008
- Erickson, S. K., Rosenheck, R. A., Trestman, R. L., Ford, J. D., & Desai, R. A. (2008). Risk of incarceration between cohorts of veterans with and without mental illness discharged from inpatient units. *Psychiatric Services*, *59*, 178-183. doi:10.1176/appi.ps.59.2.178
- Etherington, K. (2004). Heuristic research as a vehicle for personal and professional development. *Counseling and Psychotherapy Research: Linking Research with Practice*, *4*(2), 48-63. doi:10.1080/14733140412331383973
- Ewing, C. A., MacDonald, P. M., Taylor, M., & Bowers, M. J. (2007). Equine-facilitated learning for youths with severe emotional disorders: A quantitative and qualitative study. *Child Youth Care Forum*, *36*, 59-72. doi:10.1007/s10566-006-9031-x
- Exum, H., & Coll, J. E. (2008). *A civilian counselor's primer for counseling veterans*. Deerpark, NY: Linus Publications, Ltd.

- Exum, H., Coll, J. E., & Weiss, E. L. (2011). *A civilian counselor's primer for counseling veterans* (2nd ed.). Deerpark, NY: Linus Publications, Ltd.
- Fagen, F. (2014, July 24). Vietnam vet with PTSD says service dog saved his life. *The Palm Beach Post*. Retrieved from <http://www.palmbeachpost.com/news/news/local/vietnam-vet-with-ptsd-says-service-dog-saved-his-l/ngjDK/>
- Faulkner, S. L. (2007). Concern with craft: Using *ars poetica* as criteria for reading research poetry. *Qualitative Inquiry*, *13*, 218-234.
doi:10.1177/1077800406295636
- Fine, A. H. (2006). Preface. In A. H. Fine (Ed.), *Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice* (2nd ed.) (pp. xv-xviii). San Diego, CA: Elsevier.
- Frame, D. L. (2006). *Practices of therapists using equine facilitated/assisted psychotherapy in the treatment of adolescents diagnosed with depression: A qualitative study*. Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3204151)
- Fraser, A. F. (2010). *The behavior and welfare of the horse* (2nd ed.). Wallingford, Oxfordshire, UK: CABI.
- Frayne, S. M., Chiu, V. Y., Iqbal, S., Berg, E. A., Laungani, K. J., Cronkite, R. C., ... Kimerling, R. (2011). Medical care needs of returning veterans with PTSD: Their other burden. *Journal of General Medicine*, *26*, 33-39.
doi:10.1007/s11606-010-1497-4

- Frewin, K., & Gardiner, B. (2005). New age or old sage? A review of equine assisted psychotherapy. *The Australian Journal of Counseling Psychology*, 6(2), 13-17.
Retrieved from http://www.pciranch.com/files/Research-new_age_old_sage.pdf
- Friedmann, E. (1995). The role of pets in enhancing human well-being: Physiological effects. In I. Robinson (Ed.), *The Waltham book of human-animal interaction: benefits and responsibilities* (pp. 33-53). Tarrytown, NY: Elsevier Science.
- Friedmann, E., Katcher, A., Lynch, J., & Thomas, S. (1980). Animal companions and one-year survival of patients after discharge from a coronary care unit. *Public Health Reports*, 95, 307-312. <http://www.jstor.org/stable/4596316>
- Friedmann, E., Katcher, A. H., Thomas, S. A., Lynch, J. J., & Messent, P. R. (1983). Social interaction and blood pressure: Influence of companion animals. *The Journal of Nervous and Mental Disease*, 171, 461-465. doi:10.1097/00005053-198308000-00002
- Friedmann, E., & Thomas, S. A. (1995). Pet ownership, social support, and one year survival among post myocardial patients in the Cardiac Arrhythmia Suppression Trial (CAST). *American Journal of Cardiology*, 76, 1213-1217.
[http://dx.doi.org/10.1016/S0002-9149\(99\)80343-9](http://dx.doi.org/10.1016/S0002-9149(99)80343-9)
- Freire, P. (1984). *Pedagogy of the oppressed*. New York, NY: Continuum.
- Freire, P., & Macedo, D. P. (1995). A dialogue: Culture, language, race.” *Harvard Educational Review*, 65, 377–402.
- Froeschle, J. (2009). Empowering abused women through equine assisted career therapy. *Journal of Creativity in Mental Health*, 4, 180-190. doi:
10.1080/15401380902945228

- Fromm, E. (1973). *The anatomy of human destructiveness*. New York, NY: Holt, Rinehart and Winston.
- Furman, R. (2006). Poetic forms and structures in qualitative research. *Qualitative Health Research, 16*, 560-566. doi:10.1177/1049732306286819
- Gabriels, R. L., Agnew, J. A., Holt, K. D., Shoffner, A., Zhaoxing, P., Ruzzano, S., Clayton, G. H., & Mesibov, G. (2012). Pilot study measuring the effects of therapeutic horseback riding on school-age children and adolescents with autism spectrum disorders. *Research in Autism Spectrum Disorders, 6*, 578-588. doi:10.1016/j.rasd.2011.09.007
- Gadamer, H. (2004). *Truth and method* (2nd ed.). (J. Weinsheimer & D. G. Marshall, Trans.). New York, NY: Continuum. (Original work published 1960)
- Gadamer, H. (1981). *Reason in the age of science*. (F. G. Lawrence, Trans.). Cambridge, MA: Massachusetts Institute of Technology. (Original work published 1976)
- Gaines, C. (2012, October 31). Baseball attendance is greater than NFL, NHL, and NBA combined. *Business Insider*. Retrieved from <http://www.businessinsider.com/more-people-attend-mlb-games-than-nfl-nhl-and-nba-combined-sports-chart-of-the-day-2012-10>
- Galovski, T., & Lyons, J. A. (2004). Psychological sequelae of combat violence: A review of the impact of PTSD of the veteran's family and possible interventions. *Aggression and Violent Behavior, 9*, 477-501. doi:10.1016/S1359-1789(03)00045-4
- Garrison, J. (1996). A Deweyan theory of democratic listening. *Educational Theory, 46*, 429-451. doi:10.1111/j.1741-5446.1996.00429.x

- Gee, N. R., Church, M. T., & Altobelli, C. L. (2010). Preschoolers make fewer errors on an object categorization task in the presence of a dog. *Anthrozoös*, 23, 223-230. doi:10.2752/175303710X12750451258896
- Gee, N. R., Crist, E. N., & Carr, D. N. (2010). Preschool children require fewer instructional prompts to perform a memory task in the presence of a dog. *Anthrozoös*, 23, 173-184. doi:10.2752/175303710X12682332910051
- Gee, N. R., Sherlock, T. R., Bennett, E. A., & Harris, S. L. (2009). Preschoolers' adherence to instruction as a function of presence of a dog and motor skill task. *Anthrozoös*, 22, 267-276. doi:10.2752/175303709X457603
- Gehrke, E. K. (2009). Developing coherent leadership in partnership with horses – a new approach to leadership training. *Journal of Research in Innovative Teaching*, 2, 222-233. Retrieved from http://www.nu.edu/assets/resources/pageResources/7638_JournalofResearch09.pdf
- Gehrke, E. K., Baldwin, A., & Schiltz, P. M. (2011). Heart rate variability in horses engaged in equine-assisted activities. *Journal of Equine Veterinary Science*, 31, 78-84. doi:10.1016/j.jevs.2010.12.007
- Gendlin, E. T. (1997). *Experiencing and the creation of meaning: A philosophical and psychological approach to the subjective*. Evanston, IL: Northwestern University Press. (Original work published 1962)
- Giorgi, A. (2005). Remaining challenges for humanistic psychology. *Journal of Humanistic Psychology*, 45, 204-216. doi:10.1177/0022167804274361

- Giorgi, A. (2008). Difficulties encountered in the application of the phenomenological method in the social sciences. *Indo-Pacific Journal of Phenomenology*, 8(1). Retrieved from <http://www.ajol.info/index.php/ipjp/article/view/65428/53118>
- Giorgi, A. P., & Giorgi, B. (2008). Phenomenological psychology. In C. Willig & W. Stainton-Rogers (Eds.), *The SAGE handbook of qualitative research in psychology* (pp. 165-178). Thousand Oaks, CA: Sage Publications.
- Glazer, H. R., Clark, M. D., & Stein, D. S. (2004). The impact of hippotherapy on grieving children. *Journal of Hospice & Palliative Nursing*, 6, 171-175.
- Glenk, L. M., Kothgassner, O. D., Stetina, B. U., Palme, R., Kepplinger, B., & Baran, H. (2014). Salivary cortisol and behavior in therapy dogs during animal-assisted interventions: A pilot study. *Journal of Veterinary Behavior*, 9, 98-106. <http://dx.doi.org/10.1016/j.jveb.2014.02.005>
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8, 597-607. Retrieved from <http://nsuworks.nova.edu/tqr/vol8/iss4/6>
- Goodwin, D. (1999). The importance of ethology in understanding the behaviour of the horse. *Equine Veterinary Journal*, 31, 15-19. doi:10.1111/j.2042-3306.1999.tb05150.x
- Goodwin, D. (2007). Horse behaviour: Evolution, domestication and feralisation. In N. Waran (Ed.), *The welfare of horses*, pp. 1-18. Dordrecht, Netherlands: Springer.
- Granados, A. C. & Agis, I. F. (2011). Why children with special needs feel better with hippotherapy sessions: A conceptual review. *Journal of Alternative and Complementary medicine*, 17, 191-197. doi:10.1089/acm.2009.0229

- Grandin, T. (2011). The roles that animals can play with individuals with autism. In P. McCardle, S. McCune, J. A. Griffin, L. Esposito, & L. S. Freund (Eds.), *Animals in our lives: Human-animal interaction in family, community, & therapeutic settings* (pp. 183-195). Baltimore, MD: Paul H. Brookes Publishing.
- Grandin, T., Fine, A. H., & Bowers, C. M. (2010). The use of therapy animals with individuals with autism spectrum disorders. In A. H. Fine (Ed.), *Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice* (3rd ed.) (pp. 247-264). San Diego, CA: Elsevier.
- Grandin, T., & Johnson, C. (2009). *Animals make us human: Creating the best life for animals*. New York, NY: Mariner Books.
- Grossberg, J. M., & Alf, E. F. (1985). Interaction with pet dogs: Effects on human cardiovascular response. *Journal of the Delta Society*, 2, 20-27.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 105-117). Thousand Oaks, CA: Sage Publications.
- Guéguen, N., & Ciccotti, S. (2008). Domestic dogs as facilitators in social interaction: An evaluation of helping and courtship behaviors. *Anthrozoös*, 21, 339-349.
doi:10.2752/175303708X371564
- Gullone, E. (2000). The biophilia hypothesis and life in the 21st century: Increasing mental health or increasing pathology. *Journal of Happiness Studies*, 1, 293-322.
doi:10.1023/A:1010043827986

- Hagerbaumer, J. (1995). Exploring the equine mind with learning and memory studies. In *The thinking horse* (pp. 35-50). Geulph, Ontario, Canada: Equine Research Centre.
- Håkanson, M., Möller, M., Lindström, I., Mattsson, B. (2009). The horse as the healer – a study of riding in patients with back pain. *Journal of Body Work and Movement Therapies*, 13, 43-52. doi:10.1016/j.jbmt.2007.06.002
- Hall, L. K. (2012). The importance of understanding military culture. In J. Beder (Ed.), *Advances in social work practice with the military* (2nd ed.) (pp. 3-17). New York, NY: Routledge.
- Handlin, L., Hydbring-Sandberg, E., Nilsson, A., Ejdebäck, M., Jansson, A., Uvnäs-Moberg, K. (2011). Short-term interaction between dogs and their owners – effects on oxytocin, cortisol, insulin and heart rate – an exploratory study. *Anthrozoös*, 24, 301-316. doi:10.2752/175303711X13045914865385
- Hanselman, J. (2001). Coping skills interventions with adolescents in anger management using animals in therapy. *Journal of Child and Adolescent Group Therapy*, 11, 159-195. doi:10.1023/A:1014802324267
- Hansen, K. M., Messinger, C. J., Baun, M. M., & Megel, M. (1999). Companion animals alleviating distress in children. *Anthrozoös*, 12, 142-148. doi:10.2752/089279399787000264
- Hariharan, M., Swain, S., & Chivukula, U. (2014). Childhood stress and its impact on learning and academic performance. In A. J. Holliman (Ed.), *The Routledge International Companion to Educational Psychology* (pp. 129-139). New York, NY: Routledge.

- Harper, D. (2012). Choosing a qualitative research method. In D. Harper & A. R. Thompson (Eds.), *Qualitative research methods in mental health and psychotherapy* (pp. 83-97). Chichester, West Sussex, UK: John Wiley & Sons.
- Hart, L. A. (1995). The role of pets in enhancing human well-being: Effects for older people. In I. Robinson (Ed.), *The Waltham book of human-animal interaction: benefits and responsibilities* (pp. 19-31). Tarrytown, NY: Elsevier Science.
- Hart, L. A. (1996). The human/animal relationship in the research setting. In L. Krulisch, S. Mayer, & R. C. Simmonds (Eds.), *The human/research animal relationship* (pp. 25-34). Greenbelt, MD: Scientists Center for Animal Welfare.
- Hauge, H., Kvalem, I. L., Berget, B., Enders-Slegers, M., & Braastad, B. O. (2013). Equine-assisted activities and the impact on perceived social support, self-esteem and self-efficacy among adolescents – an intervention study. *International Journal of Adolescence and Youth, 19*(1), 1-21.
doi:10.1080/02673843.2013.779587
- Hausberger, M., Roche, H., Henry, S., & Visser, E. K. (2008). A review of the human-horse relationship. *Applied Animal Behaviour Science, 109*, 1-24.
doi:10.1016/j.applanim.2007.04.015
- Hausman, G., & Hausman, L. (2003). *The mythology of horses: Horse legend and lore throughout the ages*. New York, NY: Three Rivers Press.
- Heidegger, M. (1996). *Being and time*. (J. Stambaugh, Trans.). Albany, NY: State University of New York Press. (Original work published 1927)

- Hergovich, A., Monshi, B., Semmler, G., Zieglmayer, V. (2002). The effects of the presence of a dog in the classroom. *Anthrozoös, 15*, 37-50.
doi:10.2752/089279302786992775
- Hiles, D. (2001, October). *Heuristic inquiry and transpersonal research*. Paper presented to the CCPE, London, UK. Retrieved from
<http://www.psy.dmu.ac.uk/drhiles/HIpaper.htm>
- Hiles, D. R. (2008). Heuristic inquiry. In L. M. Given, *The SAGE encyclopedia of qualitative research methods* (pp. 389-393). Thousand Oaks, CA: Sage Publications.
- Hill, C. (2006). *How to think like a horse: The essential handbook for understanding why horses do what they do*. North Adams, MA: Storey Publishing.
- Hirshfield, J. (1997). *Nine gates: Entering the mind of poetry*. New York, NY: HarperCollins.
- Hoge, C. W., Auchterlonie, J. L., & Milliken, C. S. (2006). Mental health problems, use of mental health services, and attrition from military service after returning from deployment to Iraq or Afghanistan. *Journal of the American Medical Association, 295*, 1023-1032. doi:10.1001/jama.295.9.1023
- Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *The New England Journal of Medicine, 351*, 13-22.
doi:10.1056/NEJMoa040603

- Holcomb, R., Jendro, C., Weber, B., & Nahan, U. (1997). Use of an aviary to relieve depression in elderly males. *Anthrozoös*, *10*, 32-36.
doi:10.2752/089279397787001292
- Hosey, G., & Melfi, V. (2010). Human-animal bonds between zoo professionals and the animals in their care. *Zoo Biology*, *29*, 1-14. doi:10.1002/zoo.20359
- Hothersall, B., & Casey, R. (2012). Undesired behaviour in horses: A review of their development, prevention, management and association with welfare. *Equine Veterinary Education*, *24*, 479-485. doi:10.1111/j.2042-3292.2011.00296.x
- Houppert, K. (2005). *Base crimes: The military has a domestic violence problem*. Foundation for National Progress. Retrieved from: http://www.motherjones.com/news/featurex/2005/07/base_crimes.html
- Houpt, K. A. (1983). Self directed aggression: A stallion behavior problem. *Equine Practice*, *5*, 6-8.
- Houpt, K. A., & Keiper, R. (1982). The position of the stallion in the equine dominance hierarchy of feral and domestic ponies. *Journal of Animal Science*, *54*, 945-950.
doi:10.2134/jas1982.545945x
- Hunt, R. (2004). *Cowboy logic*. Christchurch, Dorset, UK: Bruce Publishing Ltd.
- Hunt, R. (n.d.). *Quotes*. Retrieved from <http://www.rayhunt.com/Quotes.html>
- Husserl, E. (1982). *Ideas pertaining to a pure phenomenology and to a phenomenological philosophy, first book: General introduction to a pure phenomenology*. (F. Kersten, Trans.). Dordrecht, Netherlands: Kluwer Academic Publishers. (Original work published 1913)

- Hyde, K. R., Kurdek, L., & Larson, P. (1983). Relationships between pet ownership and self-esteem, social sensitivity, and international trust. *Psychological Reports, 52*, 110. doi:10.2466/pr0.1983.52.1.110
- Ingold, T. (Ed.). (2000). *The perception of the environment: Essays in livelihood, dwelling and skill*. New York, NY: Routledge.
- Irwin, C., & Weber, B. (2001). *Horses don't lie: What horses teach us about our natural capacity for awareness, confidence, courage, and trust*. New York, NY: Marlow & Co.
- Jalongo, M. R., Astorino, T., & Bomboy, N. (2004). Canine visitors: The influence of therapy dogs on young children's learning and well-being in classrooms and hospitals. *Early Childhood Education Journal, 32*, 9-16.
doi:10.1023/B:ECEJ.0000039638.60714.5f
- Janik, D. S. (2005). *Unlock the genius within*. Lanham, MD: Rowman and Littlefield Education.
- Johnson, R. A., Meadows, R. L., Haubner, J. S., & Sevedge, K. (2008). Animal-assisted activity among patients with cancer: Effects on mood, fatigue, self-perceived health, and sense of coherence. *Oncology Nursing Forum, 35*, 225-232.
doi:10.1188/08.ONF.225-232
- Jourard, S. M. (1968). *Disclosing man to himself*. New York, NY: D. Van Nostrand.
- Jourard, S. M. (1971). *Self-disclosure: An experimental analysis of the transparent self*. New York, NY: Wiley-Interscience.
- Kaczor, M. (2009). Behavioral therapies in riding therapy practice. *Scientific and Educational Journal of Therapeutic Riding, 15*, 51-59.

- Kahn, P. H., Jr. (1997). Developmental psychology and the biophilia hypothesis: Children's affiliation with nature. *Developmental Review, 17*, 1-61.
doi:10.1006/drev.1996.0430
- Kaiser, L., Heleski, C. R., Siegford, J., & Smith, K. A. (2006). Stress-related behaviors among horses used in a therapeutic riding program. *Journal of the American Veterinary Medical Association, 228*, 39-45. doi:10.2460/javma.228.1.39
- Kaiser, L., Spence, L. J., Lavergne, A. G., & Bosch, K. L. V. (2004). Can a week of therapeutic riding make a difference? A pilot study. *Anthrozoös, 17*, 63-72.
doi:10.2752/089279304786991918
- Kaminski, M., Pellino, T., & Wish, J. (2002). Play and pets: The physical and emotional impact of child-life and pet therapy on hospitalized children. *Children's Health Care, 31*, 321-335. doi:10.1207/S15326888CHC3104_5
- Kamioka, H., Okada, S., Tsutani, K., Park, H., Okuizumi, H., Handa, S., Oshio, T., Park, S., Kitayugushi, J., Abe, T., Honda, T., & Mutoh, Y. (2014). Effectiveness of animal-assisted therapy: A systematic review of randomized controlled trials. *Complementary Therapies in Medicine, 22*, 371-390.
<http://dx.doi.org/10.1016/j.ctim.2013.12.016>
- Kang, H. K., Bullman, T. A., Smolenski, D. J., Skopp, N. A., Gahm, G. A., & Reger, M. A. (2015). Suicide risk among 1.3 million veterans who were on active duty during the Iraq and Afghanistan wars. *Annals of Epidemiology, 25*, 96-100.
doi:10.1016/j.annepidem.2014.11.020

- Kang, H. K., & Hyams, K. C. (2005). Mental health care needs among recent war veterans. *New England Journal of Medicine*, *351*, 1289.
doi:10.1056/NEJMp058024
- Karol, J. (2007). Applying a traditional individual psychotherapy model to equine-facilitated psychotherapy (EFP): Theory and method. *Clinical Child Psychology and Psychiatry*, *12*, 77-90. doi:10.1177/1359104507071057
- Kaymen, M. S. (2005). *Exploring animal-assisted therapy as a reading intervention strategy* (Master's thesis). Retrieved from ERIC Database (ED490729).
- Kegan, R. (1994). *In over Our Heads*. Cambridge, MA: Harvard University Press.
- Keeling, L. J., Jonare, L., & Lanneborn, L. (2009). Investigating horse-human interactions: The effect of a nervous human. *The Veterinary Journal*, *181*, 70-71.
doi:10.1016/j.tvjl.2009.03.013
- Keen, E. (1975). *A primer in phenomenological psychology*. New York, NY: Holt, Rinehart & Winston.
- Kelenka, P. (2009). *The horse in human history*. New York, NY: Cambridge University Press.
- Kellert, S. R. (1993). The biological basis for human values of nature. In S. R. Kellert and E. O. Wilson (Eds.), *The biophilia hypothesis* (pp. 42-69). Washington, DC: Island Press.
- Kemp, J. E. (2014). Suicide rates in VHA patients through 2011 with comparisons with other Americans and other Veterans through 2010. Prepared for the Veterans Health Administration. Retrieved from http://www.mentalhealth.va.gov/docs/suicide_data_report_update_january_2014.pdf

- Kersten, G., & Thomas, L. (2003). Why horses? In L. Thomas & G. Kersten (Eds.), *Equine-assisted mental health resource handbook*. Utah: EAGALA.
- Kirksey, S. E., & Helmreich, S. (2010). The emergence of multispecies ethnography. *Cultural Anthropology*, 25, 545–576. doi:10.1111/j.1548-1360.2010.01069.x
- Kirschenbaum, H., & Henderson, V. (Eds.). (1989). *The Carl Rogers reader*. New York, NY: Houghton Mifflin Company.
- Kleining, G., & Witt, H. (2000). The qualitative heuristic approach: A methodology for discovery in psychology and the social sciences. Rediscovering the method of introspection as an example. *Forum: Qualitative Social Research*, 1(1). Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/1123/2495>
- Kleining, G., & Witt, H. (2001). Discovery as basic methodology of qualitative and quantitative research. *Forum: Qualitative Social Research*, 2(1). Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/977>
- Klontz, B. T., Bivens, A., Leinart, D., & Klontz, T. (2007). The effectiveness of equine-assisted experiential therapy: Results of an open clinical trial. *Society and Animals*, 15, 257-267. doi:10.1163/156853007X217195
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.
- König von Borstel, U., & Keil, J. (2012). Horses' behavior and heart rate in a preference test for shorter and longer riding bouts. *Journal of Veterinary Behavior Clinical Applications and Research*, 7, 362-374. doi:10.1016/j.jveb.2012.02.006
- Kotrschal, K., & Ortbauer, B. (2003). Behavioral effects of the presence of a dog in a classroom. *Anthrozoös*, 16, 147-159. doi:10.2752/089279303786992170

- Kovács, Z., Bulucz, J., Kis, R., & Simon, L. (2006). An exploratory study of the effect of animal-assisted therapy on nonverbal communication in three schizophrenic patients. *Anthrozoös, 19*, 353-364. doi:10.2752/089279306785415475
- Kovács, Z., Kis, R., Rozsa, S., & Rozsa, L. (2004). Animal-assisted therapy for middle-aged schizophrenic patients living in a social institution. A pilot study. *Clinical Rehabilitation, 18*, 483–486. doi:10.1191/0269215504cr765oa
- Kramer, S. C., Friedmann, E., & Bernstein, P. L. (2009). Comparison of the effect of human interaction, animal-assisted therapy, and AIBO-assisted therapy on long-term care residents with dementia. *Anthrozoös, 22*, 43-57.
doi:10.2752/175303708X390464
- Krueger, K., Flauger, B., Farmer, K., Maros, K. (2011). Horses (equus caballus) use human local enhancement cues and adjust to human attention. *Animal Cognition, 14*, 187-201. doi:10.1007/s10071-010-0352-7
- Küpers, W. M. (2009). The status and relevance of phenomenology for integral research: Or why phenomenology is more and different than an "Upper Left" or "Zone #1" affair. *Integral Review, 5*(1), 51-95. Retrieved from <http://integral-review.org/documents/Kupers,%20Phenomenology%20Vol.%205%20No.%201.pdf>
- Lahman, M. K. E., Geist, M. R., Rodriguez, K. L., Graglia, P. E., Richard, V. M., & Schendel, R. K. (2010). Poking around poetically: Research, poetry, and trustworthiness. *Qualitative Inquiry, 16*, 39-48. doi:10.1177/1077800409350061
- Lanning, B. A., & Krennek, N. (2013). Examining effects of equine-assisted activities to help combat veterans improve quality of life. *Journal of Rehabilitation Research and Development, 50*, xv–xxii. <http://dx.doi.org/10.1682/JRRD.2013.07.0159>

- Lass-Hennemann, J., Peyk, P., Streb, M., Holz, E., & Michael, T. (2014). Presence of a dog reduces subjective but not physiological stress responses to an analog trauma. *Frontiers in Psychology, 5*. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4158977/pdf/fpsyg-05-01010.pdf>.
- Latella, D., & Abrams, B. N. (2015). The role of the equine in animal-assisted interactions. In A. H. Fine (Ed.), *Handbook on animal-assisted therapy: Foundations and guidelines for animal-assisted interventions* (4th ed.) (pp. 115-137). San Diego, CA: Elsevier.
- Lawrence, E. A. (1993). Seeing in nature what is ours: Poetry and the human-animal bond. *Journal of American Culture, 17*, 47-53. doi:10.1111/j.1542-734X.1994.t01-1-00047.x
- Leggo, C. (2008). Astonishing silence: Knowing in poetry. In J. G. Knowles & A. L. Cole (Eds.), *Handbook of the arts in qualitative research* (pp. 165-174). Thousand Oaks, CA: SAGE Publications.
- Leigh, V. (2014, July 14). *Rescued dogs helping veterans with PTSD*. Retrieved from <http://www.wcsh6.com/story/news/local/2014/07/13/being-trained-as-service-dogs/12612845/>
- Leitch, C., Hill, F. M., & Harrison, R. (2009). The philosophy and practice of interpretivist research in entrepreneurship: Quality, validation and trust. *Organizational Research Methods, 13*, 67-84. doi:10.1177/1094428109339839

- Lentini, J. A., & Knox, M. (2009). A qualitative and quantitative review of equine facilitated psychotherapy (EFP) with children and adolescents. *The Open Complementary Medicine Journal*, *1*, 51-57. Retrieved from <http://www.benthamscience.com/open/toaltmedj/articles/V001/51TOALTMEDJ.pdf>
- Levinson, B. M. (1964). Pets: A special technique in child psychotherapy. *Mental Hygiene*, *48*, 243-248.
- Levinson, B. M. (1965). Pet psychotherapy: Use of household pets in the treatment of behavior disorder in childhood. *Psychological Reports*, *17*, 695-698.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications.
- Linzey, A. & Cohn, P. N. (2011). Terms of discourse. *Journal of Animal Ethics*, *1*, vii-ix. <http://www.jstor.org/stable/10.5406/janimaethics.1.1.vii>
- Litz, B., & Orsillo, S. M. (2003). The returning Veteran of the Iraq War: Background issues and assessment guidelines. *The Iraq War Clinician Guide* (pp. 1-13). Palo Alto, CA: Department of Veterans Affairs National Center for PTSD.
- Long, L. (2009). *Effectiveness of animal assisted therapy interventions in altering childhood aggressive behaviors* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3369440)
- Louv, R. (2005). *Last child in the woods: Saving our children from nature-deficit disorder*. Chapel Hill, NC: Algonquin Books.
- Lust, E., Ryan-Haddad, A., Coover, K., & Snell, J. (2007). Measuring clinical outcomes of animal-assisted therapy: Impact on resident medication usage. *The Consultant Pharmacy*, *22*, 580-585. <http://dx.doi.org/10.4140/TCP.n.2007.580>

- MacDonald, P. M., & Cappo, J. (2003). Equine-facilitated mental health with "at risk" youth: Does it work? *NARHA Strides*, 9(3), 30-31.
- Macauley, B. L., & Gutierrez, K. M. (2004). The effectiveness of hippotherapy for children with language-learning disabilities. *Communication Disorders Quarterly*, 25, 205–217. doi:10.1177/15257401040250040501
- MacKinnon, J. (2007). What is the state of hippotherapy research and where should we go from here? In B. Engel & J. MacKinnon (Eds.), *Enhancing human occupation through hippotherapy* (pp. 158–173). Bethesda, MD: American Occupational Therapy Association.
- Malakoff, M. (2009). *Effects of animal-assisted therapy on students with emotional and behavioral disorders* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3357488)
- Mallon, G. P. (1992). Utilization of animals as therapeutic adjuncts with children and youth: A review of the literature. *Child and Youth Care Forum*, 21, 53-67.
- Marr, C. A., French, L., Thompson, D., Drum, L., Greening, G., Mormon, J., Henderson, I., & Hughes, C. W. (2000). Animal-assisted therapy in psychiatric rehabilitation. *Anthrozoös*, 13, 43-47. doi:10.2752/089279300786999950
- Martin, F., & Farnum, J. (2002). Animal-assisted therapy for children with pervasive developmental disorders. *Western Journal of Nursing Research*, 24, 657-670. doi:10.1177/019394502320555403
- Masini, A. (2010). Equine-assisted psychotherapy in clinical practice. *Journal of Psychosocial Nursing & Mental Health Services*, 48, 30-34. doi:10.3928/02793695-20100831-08

- Maslow, A. (1956). Self-actualizing people: A study of psychological health. In C. E. Moustakas (Ed.), *The self: Explorations in personal growth* (pp. 160-194). New York, NY: Harper & Row.
- Maslow, A. H. (1966). *The psychology of science: A reconnaissance*. New York, NY: Harper & Row.
- Maslow, A. H. (1971). *The farther reaches of human nature*. New York, NY: Viking Press.
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA: SAGE Publications.
- Mayberry, R. P. (1978). The mystique of the horse is strong medicine: Riding as therapeutic recreation. *Rehabilitation Literature*, 39(6-7), 192-196.
- Mayes, E., & Duncan, P. (1986). Temporal patterns of feeding behaviour in free-ranging horses. *Behavior*, 96, 105-129. doi:10.1163/156853986X00243
- McConnell, A. R., Brown, C. M., Shoda, T. M., Stayton, L. E., & Martin, C. E. (2011). Friends with benefits: On the positive consequences of pet ownership. *Journal of Personality and Social Psychology*, 101(6), 1239-1252.
<http://dx.doi.org/10.1037/a0024506>
- McCort, W. D. (1982). Behavior of feral horses and ponies. *Journal of Animal Science*, 58, 493-499. doi:10.2134/jas1984.582493x
- McDonnell, S. M. (2008). Practical review of self-mutilation in horses. *Animal Reproduction Science*, 107, 219-228. doi:10.1016/j.anireprosci.2008.04.012
- McGreevy, P. D. (2004). *Equine behavior: A guide for veterinarians and equine scientists*. London, UK: W.B. Saunders.

- McGreevy, P. D., French, N. P., & Nicol, C. J. (1995). The prevalence of abnormal behaviors in dressage, eventing and endurance horses in relation to stabling. *Veterinary Record*, *137*, 36-37. doi:10.1136/vr.137.2.36
- McNicholas, J., & Collis, G. M. (2001). Children's representations of pets in their social networks. *Child: Care, Health, and Development*, *274*, 279-294. doi:10.1046/j.1365-2214.2001.00202.x
- Melson, G. F., Peet, S., & Sparks, C. (1991). Children's attachments to their pets: Links to socio-emotional development. *Children's Environments Quarterly*, *8*(2), 55-65. <http://www.jstor.org/stable/41514782>
- Meinersmann, K. M., Bradberry, J., & Roberts, F. B. (2008). Equine facilitated psychotherapy with adult female survivors of abuse. *Journal of Psychosocial Nursing and Mental Health Services*, *46*(12), 36-42. <http://0-dx.doi.org.source.unco.edu/10.3928/02793695-20081201-08>
- Merriam, S.B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- Metraux, S., Clegg, L. W., Daigh, J. D., Culhane, D. P., & Kane, V. (2013). Risk factors for becoming homeless among a cohort of veterans who served in the era of the Iraq and Afghanistan conflicts. *American Journal of Public Health*, *103*, S255-S261. doi:10.2105/AJPH.2013.301432
- Mezirow, J. (1981). A critical theory of adult learning and education. *Adult Education*, *32*(1), 3-24.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco, CA: Jossey-Bass.

- Mezirow, J. (1995). Transformative Theory of Adult Learning.” In M. Welton (Ed.), *In defense of the lifeworld*. Albany, NY: State University of New York Press.
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, 74, 5-12. doi:10.1002/ace.7401
- Mezirow, J., & Associates (Eds.). (2000). *Learning as transformation*. San Francisco, CA: Jossey-Bass.
- Miliken, C. S., Auchterlonie, J. L., & Hoge, C. W. (2007). Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war. *Journal of the American Medical Association*, 298, 2141-2148. doi:10.1001/jama.298.18.2141
- Miller, R. M. (1995a). The senses of the horse. *Journal of Equine Veterinary Science*, 15, 102-103. doi:10.1016/S0737-0806(07)80432-1
- Miller, R. M. (1995b). The ten behavioral characteristics unique to the horse. *Journal of Equine Veterinary Science*, 15, 13-14. doi:10.1016/S0737-0806(07)80563-6
- Miller, R. M. (1995c). The unique perceptivity of the horse. *Journal of Equine Veterinary Science*, 15, 220-222. doi:10.1016/S0737-0806(07)80460-6
- Miller, R. M., & Lamb, R. (2005). *The revolution in horsemanship and what it means to mankind*. Guilford, CT: The Lyons Press.
- Miller, S. C., Kennedy, C. C., DeVoe, D. C., Hickey, M., Nelson, T., & Kogan, L. (2009). An examination of changes in oxytocin levels in men and women before and after interaction with a bonded dog. *Anthrozoös*, 22, 31-42. doi:10.2752/175303708X390455

- Moreau, L. (2001). Outlaw riders: Equine-facilitated therapy with juvenile capital offenders. *Reaching Today's Youth*, 5(2), 27-30. Retrieved from <http://www.cyc-net.org/cyc-online/cycol-0405-outlawriders.html>
- Morgan, T. D. (2008). *An examination of the anxiolytic effects of interaction with a therapy dog* (Doctoral dissertation). Retrieved from Indiana University of Pennsylvania DSpace. <http://dspace.iup.edu/bitstream/handle/2069/104/Tiffani%20Morgan%20Updated.pdf?sequence=1>
- Morris, M. (2014). Humane education, the inner worlds of animals and animal assisted therapy. *International Journal of Humanities and Social Science*, 4(7), 1-9. Retrieved from http://www.ijhssnet.com/journals/Vol_4_No_7_May_2014/1.pdf
- Morrison, M. L. (2007). Health benefits of animal-assisted interventions. *Journal of Evidence-Based Complementary and Alternative Medicine*, 12, 51-62. doi:10.1177/1533210107302397
- Motooka, M., Koike, H., Yokoyama, T., & Kennedy, N. L. (2006). Effect of dog-walking on autonomic nervous activities in senior citizens. *Medical Journal of Australia*, 184, 60-63.
- Moulta-Ali, U. (2015). Who is a "Veteran"? – Basic eligibility for Veterans' benefits (Report No. CRS R42324). Retrieved from <https://www.fas.org/sgp/crs/misc/R42324.pdf>
- Moustakas, C. (1961). *Loneliness*. Englewood Cliffs, NJ: Prentice-Hall.
- Moustakas, C. (1990). *Heuristic research: Design, methodology, and applications*. Newbury Park, CA: Sage Publications.

- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage Publications.
- Moustakas, C. (1995). *Being-in, Being-for, Being-with*. Lanham, MD: Rowman & Littlefield.
- Murphy, J., & Arkins, S. (2007). Equine learning behaviour. *Behavioural Processes*, 76, 1-13. doi:10.1016/j.beproc.2006.06.009
- Murray, M. J., Grodinsky, C., Anderson, C. W., Radue, P. F., and Schmidt, G. R. (1989). Gastric ulcers in horses: A comparison of endoscopic findings in horses with and without clinical signs. *Equine Veterinary Journal*, 17, 68-72. doi:10.1111/j.2042-3306.1989.tb05659.x
- Nicol, C. J. (1999a). Stereotypies and their relation to management. In P. A. Harris, G. M. Bomarsall, H. P. B. Davidson, & R. E. Greed (Eds.), *Proceedings of the British Equine Veterinary Association Specialist Days on Behaviour and Nutrition* (pp. 11-14). Ithaca, NY: Cornell University Press.
- Nicol, C. J. (1999b). Understanding equine stereotypies. *Equine Veterinary Journal*, 31, 20-25. doi:10.1111/j.2042-3306.1999.tb05151.x
- Nimer, J., & Lundahl, B. (2007). Animal-assisted therapy: A meta-analysis. *Anthrozoös*, 20, 225–238. doi:10.2752/089279307X224773
- Odendaal, J. S. J. (2000). Animal-assisted therapy – magic or medicine? *Journal of Psychosomatic Research*, 49, 275-280. doi:10.1016/S0022-3999(00)00183-5
- Odendaal, J. S. J., & Meintjes, R. A. (2003). Neurophysiological correlates of affiliative behavior between humans and dogs. *The Veterinary Journal*, 165, 296-301. doi:10.1016/S1090-0233(02)00237-X

- Olmert, M. (2009). *Made for each other: The biology of the human-animal bond*. Philadelphia, PA: Da Capo Press.
- Oma, K. A. (2010). Between trust and domination: Social contracts between humans and animals. *World Archaeology*, 42, 175-187. doi:10.1080/00438241003672724
- Panksepp, J., & Biven, L. (2012). *The archaeology of mind: Neuroevolutionary origins of human emotions*. New York, NY: W. W. Norton & Company, Inc.
- Parelli Natural Horsemanship (2015). *The Seven Games*. Retrieved from <http://www.parelli.com/the-seven-games.html>
- Parish-Plass, N. (2008). Animal-assisted therapy with children suffering from insecure attachment due to abuse and neglect: A method to lower the risk of intergenerational transmission of abuse? *Clinical Child Psychology and Psychiatry*, 13(1), 7–30. doi:10.1177/1359104507086338
- Parshall, D. P. (2003). Research and reflection: Animal-assisted therapy in mental health settings. *Counseling and Values*, 48, 47-56.
- Patton, M. Q. (2002). *Qualitative evaluation and research methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Patriot Paws Service Dogs (2014). *Testimonials*. Retrieved from <http://patriotpaws.org/testimonials/>
- Pedersen, I., Nordaunet, T., Martinsen, E. W., Berget, B., & Braastad, B. O. (2011). Farm animal-assisted intervention: Relationship between work and contact with farm animals and change in depression, anxiety, and self-efficacy among persons with clinical depression. *Issues in Mental health Nursing*, 32, 493-500. doi:10.3109/01612840.2011.566982

- Pendry, P., & Roeter, S. (2013). Experimental trial demonstrates positive effects of equine facilitated learning on child social competence. *Human-Animal Interaction Bulletin*, 1(1), 1-19. Retrieved from http://ant2.homestead.com/pages/HAIB_Pendry__Roeter_2013.pdf
- Pendry, P., Smith, A. N., & Roeter, S. M. (2014). Randomized trial examines effects of equine facilitated learning on adolescents' basal cortisol levels. *Human-Animal Interaction Bulletin*, 2(1), 80-95. Retrieved from <https://news.wsu.edu/wp-content/uploads/2014/04/effects-of-equine-facilitated-learning.pdf>
- Pepper, T. (2000). *Effects of brief exposure to a pet therapy dog on affective states of HIV-positive men* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 9967739)
- Peterson, A. L., Borah, E. V., & Young-McCaughan, S. (2011). Assessment and treatment of combat-related PTSD in returning war veterans. *Journal of Clinical Psychology in Medical Settings*, 18, 164-175. doi:10.1007/s10880-011-9238-3
- Pet Partners (2012a). *Animal-assisted activities (AAA)*. Retrieved from <http://www.petpartners.org/page.aspx?pid=319>
- Pet Partners (2012b). *Animal-assisted therapy (AAT)*. Retrieved from <http://www.petpartners.org/page.aspx?pid=320>
- Petrongelli-Halloran, L. M. (2010). *Evaluation of prosocial behaviors during animal-assisted therapy for children with pervasive developmental disorders* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3464431)

- Piirto, J. (2002). The question of quality and qualifications: Writing inferior poems as qualitative research. *Qualitative studies in education, 15*, 431-445.
doi:10.1080/09518390210145507
- Polanyi, M. (1958). *Personal knowledge: Towards a post-critical philosophy*. Chicago, IL: University of Chicago Press.
- Polanyi, M. (1964). *Science, faith and society*. Chicago, IL: University of Chicago Press.
- Polanyi, M. (1966). *The tacit dimension*. Garden City, NY: Doubleday.
- Polanyi, M. (1969). *Knowing and being*. M. Grene (Ed.). Chicago, IL: University of Chicago Press.
- Ponterotto, J. G. (2005). Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. *Journal of Counseling Psychology, 52*, 126-136. doi:10.1037/0022-0167.52.2.126
- Ponterotto, J. G. (2006). Brief note on the origins, evolution, and meaning of the qualitative research concept "thick description." *The Qualitative Report, 11*, 538-549. <http://www.nova.edu/ssss/QR/QR11-3/ponterotto.pdf>
- Poresky, R. H. (1996). Companion animals and other factors affecting young children's development. *Anthrozoös, 9*, 159-168. doi:10.2752/089279396787001437
- Poresky, R. H., & Hendrix, C. (1990). Differential effects of pet presence and pet-bonding on young children. *Psychological Reports, 67*, 51-54.
doi:10.2466/pr0.1990.67.1.51
- Poresky, R. H., Hendrix, C., Mosier, J. E., & Samuelson, M. L. (1988). Children's pets and adults' self-concepts. *The Journal of Psychology, 122*(5), 463-469.
doi:10.1080/00223980.1988.10542951

Porter-Wenzlaff, L. (2007). Finding their voice: Developing emotional, cognitive, and behavioral congruence in female abuse survivors through equine-facilitated therapy. *EXPLORE: The Journal of Science and Healing*, 3, 529-534.

doi:10.1016/j.explore.2007.07.016

Professional Association of Therapeutic Horsemanship International (2014a). Learn about EAAT: The role of the equine as partner in EAAT. Retrieved from <http://www.pathintl.org/resources-education/resources/eaat>

Professional Association of Therapeutic Horsemanship International (2014b).

Professional Association of Therapeutic Horsemanship International standards for certification & accreditation: 2014 edition. Denver, CO: PATH Intl.

Pyle, A. A. (2006). *Stress responses in horses used for hippotherapy* (Master's thesis).

Retrieved from Texas Tech University Libraries.

(<http://hdl.handle.net/2346/11442>)

Raber, K., & Tucker, T. J. (Eds.). (2005). *The culture of the horse*. New York, NY: Palgrave Macmillan.

Racher, F. E., & Robinson, S. (2002). Are phenomenology and positivism strange bedfellows? *Western Journal of Nursing Research*, 25, 464-481.

doi:10.1177/0193945903253909

Ratliffe, K. T., & Sanekane, C. (2009). Equine-assisted therapies: Complementary medicine or not? *Australian Journal of Outdoor Education*, 13(2), 33-43.

doi:10.1080/0161284029005273.

- Richardson, L. (1992). *The consequences of poetic representation: Writing the other, rewriting the self*. In C. Ellis & M. G. Flaherty, *Investigating subjectivity: Research on lived experience* (pp. 125-140). Newbury Park, CA: Sage Publications.
- Richardson, L. (1993). Poetics, dramatics, and transgressive validity: The case of the skipped line. *Sociological Quarterly*, 34, 695-710.
<http://www.jstor.org/stable/4121375>
- Richardson, L. (1994). Writing: A method of inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 516-529). Thousand Oaks, CA: Sage Publications.
- Richardson, L. (2001). Poetic representations of interviews. In J. F. Gubrium & J. A. Holstein, *Handbook of interview research* (Ch. 42).
<http://dx.doi.org/10.4135/9781412973588>. Thousand Oaks, CA: Sage Publications.
- Roberts, M. (1997). *The man who listens to horses*. London, UK: Arrow Books.
- Robinson, I. (1995). Associations between man and animals. In I. Robinson (Ed.), *The Waltham book of human-animal interaction: benefits and responsibilities* (pp. 1-6). Tarrytown, NY: Elsevier Science.
- Roeder, T. (2014, October 6). Air Force Academy program helps wounded warriors find peace. *The Gazette, Colorado Springs* Retrieved from
<http://www.military.com/daily-news/2014/10/07/air-force-academy-program-helps-wounded-warriors-find-peace.html>

- Rogers, C. (1951). *Client-centered therapy: Its current practice, implications, and theory*. Boston, MA: Houghton Mifflin.
- Rogers, C. R. (1961). *On becoming a person: A psychotherapist's view of psychotherapy*. New York, NY: Houghton Mifflin.
- Rosenheck, R. A., Banks, S., Pandiani, J., & Hoff, R. (2000). Bed closures and incarceration rates among users of Veterans Affairs mental health services. *Psychiatric Services (2000)*, *51*, 1282-1287. doi:10.1176/appi.ps.51.10.1282
- Rossetti, J., & King, C. (2010). Use of animal-assisted therapy with psychiatric patients: A literature review. *Journal of Psychosocial Nursing and Mental Health Services*, *48*(11), 44–48. doi:10.3928/02793695-20100831-05
- Rozempolska-Rucińska, I., Trojan, M., Kosik, E., Próchniak, T., & Górecka-Bruzda, A. (2013). How "natural" training methods can affect equine mental state? A critical approach – a review. *Animal Science Papers and Reports*, *31*, 185-194. Retrieved from http://www.ighz.edu.pl/files/objects/7495/64/str_185-194.pdf
- Rumann, C. B., & Hamrick, F. A. (2010). Student veterans in transition: Re-enrolling after warzone deployments. *The Journal of Higher Education*, *81*, 431-458. doi:1353/jhe.0.0103
- Salter, R. E., & Hudson, R. J. (1982). Social organization of feral horses in western Canada. *Applied Animal Ethology*, *8*, 207-223. doi:10.1016/0304-3762(82)90205-X
- Sammons, M. T., & Batten, S. V. (2008). Psychological services for returning veterans and their families: evolving conceptualizations of the sequelae of war-zone experiences. *Journal of Clinical Psychology*, *64*, 921–7. doi:10.1002/jclp.20519

- Sayer, N. A., Noorbaloochi, S., Frazier, P., Carlson, K., Gravely, A., & Murdoch, M. (2010). Reintegration problems and treatment interests among Iraq and Afghanistan combat veterans receiving VA medical care. *Psychiatric Services, 61*, 589-597. doi:10.1176/appi.ps.61.6.589
- Schmidt, K. (2009, March 18). In memory of Ray Hunt [Blog post]. Retrieved from <http://schmidtkes.blogspot.com/2009/03/in-memory-of-ray-hunt.html>
- Schneider, M. S., & Pilchak Harley, L. (2006). How dogs influence the evaluation of psychotherapists. *Anthrozoös, 19*, 128-142. doi:10.2752/089279306785593784
- Schultz, P. N., Remick-Barlow, G. A., & Robbins, L. (2007). Equine-assisted psychotherapy: A mental health promotion/intervention modality for children who have experienced intra-family violence. *Health and Social Care in the Community, 15*, 265-271. doi:10.1111/j.1365-2524.2006.00684.x
- Schutz, A. (1962). *Collected papers: The problem of social reality* (Vol. I). M. Naatnson (Ed.). The Hague, Netherlands: Martinus Nijhoff Publishers.
- Schwandt, T. A. (1994). Constructivist, interpretivist approaches to human inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (pp. 118-137). Thousand Oaks, CA: Sage Publications.
- Schwandt, T. A. (2000). Three epistemological stances for qualitative inquiry: Interpretivism, hermeneutics, and social constructionism. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (2nd ed.) (pp. 189-213). Thousand Oaks, CA: Sage Publications.

- Seal, K. H., Bertenthal, D., Miner, C. R., Sen, S., & Marmar, C. (2007). Bringing the war back home: Mental health disorders among 103788 US veterans returning from Iraq and Afghanistan seen at Department of Veterans Affairs facilities. *Archives of Internal Medicine*, *167*, 476-482. doi:10.1001/archinte.167.5.476
- Sela-Smith (2002). Heuristic research: A review and critique of Moustakas's method. *Journal of Humanistic Psychology*, *42*(3), 53-88. doi:10.1177/0022167802423004
- Selby, A., & Smith-Osborne, A. (2013). A systematic review of effectiveness of complementary and adjunct therapies and interventions involving equines. *Health Psychology*, *32*, 418-432. doi:10.1037/a0029188
- Serpell, J. A. (1986). *In the company of animals: A study of human-animal relationships*. New York, NY: Blackwell.
- Serpell, J. A. (2005). People in disguise: Anthropomorphism and the human-pet relationship. In L. Dasont & G. Mitman (Eds.), *Thinking with Animals* (pp. 121-136). New York, NY: Columbia University Press.
- Serpell, J. A. (2010). Animal-assisted interventions in historical perspective. In A. H. Fine (Ed.), *Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice* (3rd ed.) (pp. 17-32). San Diego, CA: Elsevier.
- Serpell, J. A. (2011). Historical and cultural perspectives on human-pet interactions. In P. McCardle, S. McClune, J. A. Griffin, L. Esposito, & L. S. Freund (Eds.), *Animals in our lives: Human-animal interaction in family, community, & therapeutic settings* (pp. 11-22). Baltimore, MD: Paul H. Brookes Publishing Co.

- Serpell, J. A., Coppinger, R., Fine, A. H., & Peralta, J. M. (2010). Welfare consideration in therapy and assistance animals. In A. H. Fine (Ed.), *Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice* (3rd ed.) (pp. 481-504). San Diego, CA: Elsevier.
- Serpell, J. A., & Paul, E. S. (2011). Pets in the family: An evolutionary perspective. In C. Salmon & T. Shackelford (Eds.), *The Oxford handbook of evolutionary family psychology* (pp. 297-309). New York, NY: Oxford University Press.
- Shambo, L., Seeley, S. K., & Vonderfecht, H. R. (2010). A pilot study on equine-facilitated psychotherapy for trauma-related disorders. *Scientific and Educational Journal of Therapeutic Riding*, 16, 11-23.
- Shannon, R. L. (1971). *Where the truth comes out: Humanistic education*. Columbus, OH: Charles E. Merrill Publishing Company.
- Shay, J. (2009). The trials of homecoming: Osyseyus returns from Iraq/Afghanistan. *Smith College Studies in Social Work*, 79, 286-298.
doi:10.1080/00377310903130332
- Shay, J. (2014). Moral injury. *Psychoanalytic Psychology*, 31, 182-191.
<http://dx.doi.org/10.1037/a0036090>
- Sheared, V. (1994). Giving voice: An inclusive model of instruction—a womanist perspective. In E. Hayes and S.A.J. Colin III (Eds.), *Confronting racism and sexism in adult education. New Directions for Continuing Education*, 61. San Francisco, CA: Jossey-Bass.
- Shepard, P. (1993). On animal friends. In S. R. Kellert and E. O. Wilson (Eds.), *The Biophilia Hypothesis* (pp. 275-300). Washington, DC: Island Press.

- Sher, L., Braquehais, M. D., & Casas, M. (2012). Posttraumatic stress disorder, depression, and suicide in veterans. *Cleveland Clinic Journal of Medicine*, 79, 92-97. doi:10.3949/ccjm.79a.11069
- Shipman, P. (2010). The animal connection and human evolution. *Current Anthropology*, 51, 519-538. <http://www.jstor.org/stable/10.1086/653816>
- Siegel, J. M. (2011). Pet ownership and health. In C. Blazina, G. Boyraz, & D. Shen-Miller (Eds.), *The psychology of the human-animal bond: A resource for clinicians and researchers* (pp. 167-177). New York, NY: Springer.
- Simmonds, R. C. (1996). History of the human/animal relationship. In L. Krulisch, S. Mayer, & R. C. Simmonds (Eds.), *The human/research animal relationship* (pp. 21-24). Greenbelt, MD: Scientists Center for Animal Welfare.
- Simon, L. J. (1984). The pet trap: Negative effects of pet ownership on families and individuals. In R. K. Anderson, B. L. Hart, & L. A. Hart (Eds.), *The pet connection: Its influence on our health and quality of life* (pp. 226-240). Minneapolis, MN: University of Minnesota.
- Sinha, D. (1963). Phenomenology and positivism. *Philosophy and Phenomenological Research*, 23, 562-577. doi:10.2307/2104519
- Skeen, J. (2011). Predator-prey relationships: What humans can learn from horses about being whole. In C. Blazina, G. Boyraz, & D. Shen-Miller (Eds.), *The psychology of the human-animal bond: A resource for clinicians and researchers* (pp. 81-106). New York, NY: Springer.

- Smith, B. (2012). The 'pet-effect': Health related aspects of companion animal ownership. *Australian Family Physician*, 41, 439-442. Retrieved from <http://www.racgp.org.au/afp/2012/june/the-pet-effect/>
- Snider, L., Korner-Bitensky, N., Kammann, C., Warner, S., & Saleh, M. (2007). Horseback riding as therapy for children with cerebral palsy: Is there evidence of its effectiveness. *Physical and Occupational Therapy in Pediatrics*, 27(2), 5-23. doi:10.1080/J006v27n02_02
- Somervill, J. W., Kruglikova, Y. A., Robertson, R. L., Hanson, L. M., & MacLin, O. H. (2008). Physiological responses by college students to a dog and a cat: Implications for pet therapy. *North American Journal of Psychology*, 10, 519-528.
- Somervill, J. W., Swanson, A. M., Robertson, R. L., Arnett, M. A., & MacLin, O. H. (2009). Handling a dog by children with Attention-Deficit/Hyperactivity Disorder: Calming or exciting? *North American Journal of Psychology*, 11, 111-120.
- Souter, M. A., & Miller, M. D. (2007). Do animal-assisted activities effectively treat depression? A meta-analysis. *Anthrozoös*, 20, 167-180. doi:10.2752/175303707X207954
- Spencer, L., & Paul, R. (2006). *Rethinking friendship: Hidden solidarities today*. Princeton, NJ: Princeton University Press.
- Spink, J. (1993). *Developmental riding therapy: A team approach to assessment and treatment*. Tucson, AZ: Therapy Skill Builders.

- Sprinkle, J. E. (2008). Animals, empathy, and violence: can animals be used to convey principles of prosocial behavior to children? *Youth Violence and Juvenile Justice*, 6, 47-58. doi:10.1177/1541204007305525
- Starling, A. (2014, September 22). "Horse whisperer" works to heal veterans with PTSD. Retrieved from <http://www.wjla.com/articles/2014/09/-horse-whisperer-works-to-heal-veterans-with-ptsd-107398.html>
- Stenbacka, C. (2001). Qualitative research requires quality concepts of its own. *Management Decision*, 39, 551-555.
<http://dx.doi.org/10.1108/EUM0000000005801>
- Sterba, J. A., Rogers, B. T., France, A. P., & Vokes, D. A. (2002). Horseback riding in children with cerebral palsy: Effect on gross motor function. *Developmental Medicine & Child Neurology*, 44, 301-308. doi:10.1111/j.1469-8749.2002.tb00815.x
- Straatman, I, Hanson, E., Endenburg, N., Mol J. (1997). The influence of a dog on male students during a stressor. *Anthrozoös*, 10, 191-197.
doi:10.2752/089279397787001012
- Strain, J. P. (1971). *Modern philosophies of education*. New York, NY: Random House.
- Suthers-McCabe, M. H., & Albano, L. (2004). Evaluation of stress response of horse in equine assisted therapy programs. *Scientific & Educational Journal of Therapeutic Riding*. Retrieved from <http://www.petpartners.org/document.doc?id=268>

- Tanielian, T., & Jaycox, L. H. (Eds.). (2008). *Invisible wounds of war: Psychological and cognitive injuries, their consequences, and services to assist recovery*. Santa Monica, CA: RAND corporation. Retrieved from http://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG720.pdf
- Taylor, E. W. Theory and practice of transformative learning: A critical review. *ERIC Clearinghouse on Adult, Career, and Vocational Education*, 374. (ED423422)
- Taylor, E. W. (2007). An update of transformative learning theory: A critical review of the empirical research (1999-2005). *International Journal of Lifelong Education*, 26, 173-191. doi:10.1080/02601370701219475
- Taylor, E. W. (2008). Transformative learning theory. *New directions for adult and continuing education*, 119, 5-15. doi:10.1002/ace.301
- Taylor, E. W. (2009). Fostering transformative learning. In J. Mezirow, E. W. Taylor, & Associates (Eds.), *Transformative learning in practice: Insights from community, workplace, and higher education* (pp. 3-17). San Francisco, CA: Jossey-Bass.
- Tedeschi, P., Fitchett, J., & Molidor, C. E. (2005). The incorporation of animal-assisted interventions in social work education. *Journal of Family Social Work*, 9(4), 59-77. doi:10.1300/J039v09n04_05
- Thompson, M. (2010, December 5). Bringing dogs to heal: Care for veterans with PTSD. *Time*. Retrieved from <http://content.time.com/time/magazine/article/0,9171,2030897,00.html>
- Tisdell, E. J. (2003). *Exploring spirituality and culture in adult and higher education*. San Francisco, CA: Jossey-Bass.

- Triebenbacher, S. L. (1998). Pets as transitional objects: their role in children's emotional development. *Psychological Reports, 82*, 191-200. doi:10.2466/pr0.1998.82.1.191
- Trotter, K. S., Chandler, C. K., Goodwin-Bond, D., & Casey, J. (2008). A comparative study of the efficacy of group equine assisted counseling with at-risk children and adolescents. *Journal of Creativity in Mental Health, 3*, 254-284.
doi:10.1080/15401380802356880
- Tsai, C. (2007). *The effect of animal-assisted therapy on children's stress during hospitalization* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3298418)
- Tsai, C., Friedmann, E., & Thomas, S. A. (2010). The effect of animal-assisted therapy on stress responses in hospitalized children. *Anthrozoös, 23*, 245-258.
doi:10.2752/175303710X12750451258977
- Tyler, T. (2003). If horses had hands. *Society & Animals, 11*, 267-281.
doi:10.1163/156853003322773069
- Ulrich, R. S. (1993). Biophilia, biophobia, and natural landscapes. In S. R. Kellert and E. O. Wilson (Eds.), *The Biophilia Hypothesis* (pp. 73-137). Washington, DC: Island Press.
- Underhill, A. (1989). Process in humanistic education. *ELT Journal, 43*, 250-260.
doi:10.1093/elt/43.4.250
- United States Department of Veterans Affairs (2010). *National survey of veterans, active duty service members, demobilized national guard and reserve members, family members, and surviving spouses*. Retrieved from <http://www.va.gov/vetdata/docs/SurveysAndStudies/NVSSurveyFinalWeightedReport.pdf>

United States Department of Veterans Affairs (2011). *Gulf War era Veterans report: Pre-9/11*. Retrieved from http://www.va.gov/vetdata/docs/SpecialReports/GW_Pre911_report.pdf

United States Department of Veterans Affairs (2014a). *Military sexual trauma*. Retrieved from http://www.mentalhealth.va.gov/docs/mst_general_factsheet.pdf

United States Department of Veterans Affairs (2014a). *Profile of veterans: 2012: Data from the American Community Survey*. Prepared by the National Center for Veterans Analysis and Statistics, September 2014. Retrieved from http://www.va.gov/vetdata/docs/SpecialReports/Profile_of_Veterans_2012.pdf

United States Department of Veterans Affairs (2014b). *Service-connected disabled veterans by disability rating group: FY1986 to FY2013*. Prepared by the National Center for Veterans Analysis and Statistics, September 2014. Retrieved from <http://www.va.gov/vetdata/Utilization.asp>

United States Department of Veterans Affairs National Center for PTSD (2015a). *How common is PTSD?* Retrieved from <http://www.ptsd.va.gov/public/PTSD-overview/basics/how-common-is-ptsd.asp>

United States Department of Veterans Affairs National Center for PTSD (2015b). *Returning from the War Zone: A guide for military personnel*. Retrieved from <http://www.ptsd.va.gov/public/reintegration/guide-pdf/SMGuide.pdf>

United States Dressage Federation. (n.d.). Dressage training. Retrieved from <http://www.usdf.org/about/about-dressage/dressage-training.asp>

- Urbanski, B. L., & Lazenby, M. (2012). Distress among hospitalized pediatric cancer patients modified by pet-therapy intervention to improve quality of life. *Journal of Pediatric Oncology Nursing, 29*, 272-282. doi:10.1177/1043454212455697
- Urton, G. (Ed.). (1985). *Animal myths and metaphors in South America*. Salt Lake City, UT: University of Utah Press.
- Valett, R. E. (1977). *Humanistic education: Developing the total person*. Saint Louis, MO: The C. V. Mosby Company.
- Vandenberg, D. (1997). Phenomenological research in the study of education. In D. Vandenberg (Ed.), *Phenomenology & educational discourse* (pp. 3-37). Johannesburg, South Africa: Heinemann.
- Van Houte, B. A., & Jarvis, P. A. (1995). The role of pets in preadolescent psychosocial development. *Journal of Applied Developmental Psychology, 16*, 463-479. doi:10.1016/0193-3973(95)90030-6
- van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. Albany, NY: State University of New York Press.
- Veevers, J. E. (1985). The social meanings of pets: Alternative roles for companion animals. *Marriage and Family Review, 8*, 11-30. doi:10.1300/J002v08n03_03
- Velde, B. P., Cipriani, J., & Fisher, G. (2005). Resident and therapist views on animal-assisted therapy: Implications for occupational therapy practice. *Australian Occupational Therapy Journal, 52*, 43-50. doi:10.1111/j.1440-1630.2004.00442.x
- Viau, R., Arsenault-Lapierre, G., Fecteau, S., Champagne, N., Walker, C. D., & Lupien, S. (2010). Effect of service dogs on salivary cortisol secretion in autistic children. *Psychoneuroendocrinology, 35*, 1187-1193. doi:10.1016/j.psyneuen.2010.02.004

- Vidrine, M., Owen-Smith, P., & Faulkner, P. (2002). Equine-facilitated group psychotherapy: Applications for therapeutic vaulting. *Issues in Mental Health Nursing, 23*, 587-603. doi:10.1080/01612840290052730
- Villalta-Gil, V., Roca, M., Gonzalez, N., Domènec, E., Cuca, A. E., Asensio, M. R., Esteban, M. E., Ochoa, S., Haro, J. M., & Shi-Can group (2009). Dog-assisted therapy in the treatment of chronic schizophrenia inpatients. *Anthrozoös, 22*, 149-159. doi:10.2752/175303709X434176
- Walker, B. (2014, October 4). Marine with PTSD says dog saved his life. *The Sacramento Bee*. Retrieved from <http://www.sacbee.com/2014/10/04/6755172/marine-with-ptsd-says-dog-saved.html>
- Walsh, F. (2009). Human-animal bonds I: the relational significance of companion animals. *Family Process, 48*, 462-80. doi:10.1111/j.1545-5300.2009.01296.x
- Wanneberg, P. L. (2014). Disability, riding, and identity: A qualitative study on the influence of riding the identity construction of people with disabilities. *International Journal of Disability, Development and Education, 61*, 67-79. doi:10.1080/1034912X.2014.878543
- Wells, D. L. (2009). Associations between pet ownership and self-reported health status in people suffering from chronic fatigue syndrome. *The Journal of Alternative and Complementary Medicine, 15*(4), 407-413. doi:10.1089/acm.2008.0496
- Wells, M., & Perrine, R. (2001). Critters in the cube farm: Perceived psychological and organizational effects of pets in the workplace. *Journal of Occupational Health Psychology, 6*, 81-87. doi:10.1037//1076-8998.6.1.81

- Wertsch, M. E. (1991). *Military brats: Legacies of childhood inside the fortress*. New York, NY: Harmony Books
- Wesley, M. C., Minatrea, N. B., & Watson, J. C. (2009). Animal-assisted therapy in the treatment of substance dependence. *Anthrozoös*, 22, 137-148.
doi:10.2752/175303709X434167
- Wharton, T., C. Sercu, M. Malone, & B. Macauley. (2005). An analysis of equine stress levels after participation in therapy sessions. *Scientific and Educational Journal of Therapeutic Riding*, 25-30. Retrieved from http://www.tracywharton.com/Research_files_files/submission%20Horse%20data%20journal%20article.doc
- Whittlesey-Jerome, W. K. (2014). Adding equine-assisted psychotherapy to conventional treatments: A pilot study exploring ways to increase adult female self-efficacy among victims of interpersonal violence. *The Practitioner Scholar: Journal of Counseling and Professional Psychology*, 3, 82-101. Retrieved from <http://www.thepractitionerscholar.com/article/view/13570>
- Wilber (2001). *Sex, ecology, spirituality: The spirit of evolution* (2nd ed.). Boston, MA: Shambhala. (Original work published in 1995)
- Williams, S. H. (2003). Black mama sauce: Integrating the theatre of the oppressed and Afrocentricity in transformative learning. In C. A. Wiessner, S. R. Meyer, N. L. Pfhal, & P. G. Neaman (Eds.), *Proceedings of the Fifth International Conference on Transformative Learning: Transformative learning in action—building bridges across contexts and disciplines*. New York, NY: Columbia University. Retrieved from <http://pocketknowledge.tc.columbia.edu/home.php/viewfile/download/95863>

- Wilson, C. C. (1991). The pet as an anxiolytic intervention. *Journal of Nervous and Mental Disease, 179*, 482-489. doi:10.1097/00005053-199108000-00006
- Wilson, E. O. (1984). *Biophilia: The human bond with other species*. Cambridge, MA: Harvard University Press.
- Wilson, E. O. (1993). Biophilia and the conservation ethic. In S. R. Kellert and E. O. Wilson (Eds.), *The biophilia hypothesis* (pp. 31-41). Washington, DC: Island Press.
- Wirgler, S. (2015, March 1). Hug a horse or human today [Blog post]. Retrieved from <http://www.susanwirgler.com/category/uncategorized/>
- Wounded Warrior Project (2015). Programs. Retrieved from <http://www.woundedwarriorproject.org/programs.aspx>
- Yorke, J., Nugent, W., Strand, E., Bolen, R., New, J., & Davis, C. (2013). Equine-assisted therapy and its impact on cortisol levels of children and horses: A pilot study and meta-analysis. *Early Child Development and Care, 183*, 874-894. doi:10.1080/03004430.2012.693486
- Ziegler, M., Paulus, T. M., & Woodside, M. (2006). "This course is helping us all arrive at new viewpoints, isn't it?" Making meaning through dialogue in a blended environment. *Journal of Transformative Education, 4*, 302-319. doi:10.1177/1541344606294819

APPENDIX A

UNC INSTITUTIONAL REVIEW BOARD APPROVAL

APPENDIX A

UNIVERSITY of
NORTHERN COLORADO*Institutional Review Board*

DATE: February 1, 2013

TO: Karen Krob, M.M.
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [410796-2] Equine Facilitated Learning/Psychotherapy for War Veterans:
Developing a Program and Exploring Participant Experiences

SUBMISSION TYPE: Revision

ACTION: APPROVED

APPROVAL DATE: January 31, 2013

EXPIRATION DATE: January 31, 2014

REVIEW TYPE: Expedited Review

Thank you for your submission of Revision materials for this project. The University of Northern Colorado (UNCO) IRB has APPROVED your submission. All research must be conducted in accordance with this approved submission.

Karen - Hello, I'm co-chair of UNC IRB and second reviewer of your IRB application. As you're hopefully, aware Wendy Highby, provided first reviewer approval based on your revisions.

I've reviewed your revised materials and have no further requests for modifications or revisions. Thank you for an exceptionally well-written proposal.

Best wishes for your research and don't hesitate to contact me if you have any IRB-related questions or concerns.

Sincerely,

Dr. Megan Stellino

This submission has received Expedited Review based on applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

APPENDIX A

Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of January 31, 2014.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.

APPENDIX B

UNC INSTITUTIONAL REVIEW BOARD
PROJECT MODIFICATION APPROVAL

APPENDIX B

Thursday, October 30, 2014 8:44:18 PM Mountain Daylight Time

Subject: IRBNet Board Action
Date: Wednesday, June 26, 2013 9:33:59 AM Mountain Daylight Time
From: Sherry May
To: Krob, Karen

Please note that University of Northern Colorado (UNCO) IRB has taken the following action on IRBNet:

Project Title: [410796-3] Equine Facilitated Learning/Psychotherapy for War Veterans: Developing a Program and Exploring Participant Experiences
Principal Investigator: Karen Krob, M.M.

Submission Type: Amendment/Modification
Date Submitted: June 13, 2013

Action: APPROVED
Effective Date: June 25, 2013
Review Type: Expedited Review

Should you have any questions you may contact Sherry May at sherry.may@unco.edu.

Thank you,
The IRBNet Support Team

www.irbnet.org

APPENDIX C

UNC INSTITUTIONAL ANIMAL CARE AND USE
COMMITTEE APPROVAL

APPENDIX C



IACUC Memorandum

To: Karen Krob
From: Laura Martin, Director of Compliance and Operations
CC: IACUC Files
Date: 10/27/2014
Re: IACUC Protocol 1410B-KK-E-17 Approval

The UNC IACUC has completed a final review of your protocol "*Equine-Facilitated Learning and Psychotherapy for Veterans*". The protocol review was based on the requirements of Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training; the Public Health Policy on Humane Care and Use of Laboratory Animals; and the USDA Animal Welfare Act and Regulations. Based on the review, the IACUC has determined that all review criteria have been adequately addressed. The PI/PD is approved to perform the experiments or procedures as described in the identified protocol as submitted to the Committee. This protocol has been assigned the following number 1410B-KK-E-17.

The next annual review will be due before **October 27, 2015**.

Sincerely,



Laura Martin, Director of Compliance and Operations

APPENDIX D
DATA COLLECTION SUMMARY

APPENDIX D

Table 6

Data Collection Summary per Participating Veteran

Veteran	EP	Consent	Intake	Session I (8 wks)			Session II (8 wks)			Session III (8 wks)		
				Volunteer Obsrvtn	Exit	Interview	Volunteer Obsrvtn	Exit	Interview	Volunteer Obsrvtn	Exit	Interview
Darla	✓	✓	✓	n.d.	✓	✓	n.d.	✓	✓	n.d.	n.d.	n.d.
Jennifer	✓	✓	✓	n.d.	✓	✓	n.d.	✓	✓	n.d.	n.d.	n.d.
Mary	✓	✓	✓	✓	✓	✓	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Mike	✓	✓	✓	n.d.	✓	✓	✓	n.d.	n.d.	n.d.	n.d.	n.d.
Tyler	✓	✓	✓	incomplete	✓	✓	incomplete	n.d.	✓	n.d.	n.d.	n.d.
Daniel	✓	✓	✓	✓	✓	✓	incomplete	✓	✓			
Josh	✓	✓	✓	✓	n.d.	n.d.	incomplete	n.d.	n.d.			
Jasmine	✓	✓	✓				incomplete	✓	✓	n.d.	✓	n.d.
Gena	✓	✓	n.d.				incomplete	n.d.	✓	n.d.	n.d.	n.d.
Matt	✓	✓	n.d.				incomplete	n.d.	✓	n.d.	n.d.	n.d.
Russ	✓	✓	n.d.							n.d.	✓	✓
Jim	✓	✓	n.d.							n.d.	n.d.	n.d.

n.d. = no data

incomplete = partially complete, but missing data

APPENDIX E
QUANTITATIVE DATA SUMMARY

APPENDIX E

I. Attendance Summary

- a. 2013: 16 Veterans signed up, 12 participated (4 returning from 2012)
- b. Overall attendance (I-IV): 82.85%; Average individual rate of attendance 81.23%
 - i. Session I average: 82.76%
 - ii. Session II average: 80.00%
 - iii. Session III average: 85.23%

II. Volunteer Observations

- a. Description:
 - i. Weekly progress report completed by volunteers paired with riders following each session; Based on EFL survey for use with youths-at-risk with added items for Veterans
 - ii. 26 Likert-type items, 6-point scale measuring frequency of rider behaviors (never – always) – NOT NORMED
 - 1. Attitude (4 items, e.g., "Rider acts proud after completing tasks")
 - 2. Communication (4 items, e.g., "Rider willingly uses body language to communicate with horse and/or others")
 - 3. Trust (4 items, e.g., "Rider demonstrates trust with horse through willingness to touch/handle the horse")
 - 4. Engagement (4 items, e.g., "Rider takes initiative to accomplish tasks with little assistance")
 - 5. Focus (4 items, e.g., "Rider is exhibits awareness of self/horse in relation to external stimuli")
 - 6. PTSD Symptoms (6 items, e.g., "Rider seems anxious or 'on edge'" – reverse scored)
- b. Participants: 7 total
 - i. Session I: 4 participants (4 usable)
 - ii. Session II: 6 participants (1 usable)
- c. Summary: Overall ($n = 5$, $df = 30$, except PTSD = 28)
 - i. Communication: Significant improvement ($R^2 = 0.29$, $p < 0.01$, weekly increase, on average = 0.19)
 - ii. Attitude: No significant improvement ($R^2 = 0.08$, $p = 0.12106$, weekly increase, on average = 0.10)
 - iii. Trust: Significant improvement ($R^2 = 0.25$, $p < 0.01$, weekly increase, on average = 0.16)
 - iv. Engagement: Significant improvement ($R^2 = 0.24$, $p < 0.01$, weekly increase, on average = 0.22)
 - v. Focus: Significant improvement ($R^2 = 0.13$, $p < 0.05$, weekly increase, on average = 0.13)
 - vi. PTSD Symptoms: Significant improvement

- ($R^2 = 0.08, p < 0.05$, weekly increase, on average = 0.07)
- d. Summary: Students ($n = 7$)
 - i. Communication: 7 Veterans improved, 2 improved significantly ($R^2 = 0.63, p < 0.05$), ($R^2 = 0.77, p < 0.05$)
 - ii. Attitude: 4 Veterans improved, none improved significantly
 - iii. Trust: 5 Veterans improved; 1 improved significantly ($R^2 = 0.80, p < 0.01$)
 - iv. Engagement: 6 Veterans improved; none improved significantly
 - v. Focus: 5 Veterans improved; none improved significantly
 - vi. PTSD symptoms: 4 Veterans improved; none improved significantly

III. Intake/Exit Self-Report Survey

- a. Survey Description:
 - i. Based on program goals, WHO-DAS II (World Health Organization Disability Assessment Scale 2.0) and Horses and Humans Research Foundation measure used with Veteran population
 - ii. Demographic info (age, sex, ethnicity, military service, primary readjustment/mental health issue, treatment status, primary medical issues, disability status, equine experience)
 - iii. 24-item Likert-type, 5-point scale (Never – Always) general mental & physical health wellness (frequency of symptoms in past month) – goal = reduce scores from pre to post – NOT NORMED
 - 1. Mental/emotional wellness: Hopeless, helpless, angry, depressed, guilt, grief, trouble expressing feelings, anxious, overly aware of or hyper-alert to surroundings
 - 2. Cognitive: trouble concentrating
 - 3. Physical Wellness: trouble sleeping, nightmares, self-medicate, back pain, neck/shoulder pain, leg pain, tight/tense muscles, can bend over*, headaches, tired, out-of-shape
 - 4. Interactions with others: difficulty trusting others, isolate from friends/family, avoid social situations
 - iv. 5 open-ended items (why you want to participate; what you expect/how you think it will affect you; what are you looking forward to; what are your hesitations; other comments)
- b. Exit Survey included 18 items assessing experience with the program
 - i. 12 items rating degree of agreement (5-point scale, Strongly Disagree – Strongly Agree) with statements related changes specifically attributed to participation in the program based on current session (e.g., "as a result of participating in the program, I have noticed...").
 - 1. Mood: Improvement in mood on-site/off-site
 - 2. Daily functioning & physical wellness: Improvement in daily functioning (less trouble sleeping, anxiety in social

- situations, etc.); improved physical well-being (fewer headaches, improved stamina); less likely to self-medicate; foster independence
3. Emotional wellness: More mindful/aware of feelings; improved ability to express feelings
 4. Relationships: Capacity for compassion and nurturing toward self & others; Improved relationships
 5. Feel you have support in times of need
 6. **For session III, added two items:
 - a. Emotional intelligence/empathy: Improved ability to understand and appropriately respond to others' emotions/feelings
 - b. Goals: Made steps toward achieving goals (please explain)
- ii. 1 binary question (would you participate again)
 - iii. 5 open-ended items (why did you want to participate/what did you expect; did the program meet expectations; what was most helpful/what did you enjoy most; what would you change; additional comments)
- c. Outcomes: Wellness Scale
- i. Pre/Post for 8 new Veterans (Table 7, Figure 75) = No significant change (one tail paired-sample *t*-test): ($M_1 = 73.25$; $M_2 = 71.75$; $t = 0.1565$; $p = 0.044$, $df = 7$, $g = 0.070$)
 - ii. Pre/Post for 4 "continuing" Veterans who completed intake and two exit surveys (one after first 8-week session, one after second 8-week session) (Table 8, Figure 76)
 1. Pretest to Posttest 1 = no significant change (one-tail paired sample *t*-test): ($M_1 = 78.5$; $M_2 = 68.75$; $t = 1.79$; $p = 0.09$, $df = 3$, $g = 0.33$)
 2. Pretest to Posttest 2 = significant change ($M_1 = 78.5$; $M_2 = 66$; $t = 3.29$; $p = 0.02$, $df = 3$, $g = 0.41$)
 3. Repeated measures ANOVA (Pre, Post1, Post2) = also significant change ($F(2,6) = 56.22$, $p = 0.00013$)
 - iii. Interpretation: May be beneficial (even necessary) for Veterans to participate in more than one session to see significant change in wellness
- d. Outcomes: Attributions to the riding center: 8 response
- i. Positive Outcomes
 1. **100%** would participate again (but responders not inclusive of those who quit)
 2. **100%** strongly agree or agree noticing an improvement in mood while on-site (i.e., at the center)
 3. **100%** strongly agree or agree that, as a result of participating in the program, they have made steps toward achieving their goals (**based on 2 responses**)

4. **87.5%** strongly agree or agree they are more mindful or aware of their feelings
 5. **87.5%** strongly agree or agree noticing an improvement in their capacity for compassion and nurturing toward their selves
 6. **87.5%** strongly agree or agree that, because of the program, they feel they have support in times of need
 7. **75%** strongly agree or agree noticing improvements in relationships with others
 8. **75%** strongly agree or agree that participation in the program has helped them continue living independently in their own home
 9. **62.5%** strongly agree or agree noticing an improvement in my mood even when away from the center
 10. **62.5%** strongly agree or agree noticing an improvement in their ability to express their feelings
 11. **62.5%** strongly agree or agree noticing an improvement in their capacity for compassion and nurturing toward others (e.g., family members, friends, coworkers)
- ii. "Neutral" outcomes (no particular positive or negative feelings)
1. **100%** neutral as far as noticing an improvement in their ability to understand and appropriately respond to others' emotions/feelings (**based on 2 responses**)
 2. **62.5%** neutral as far as noticing an improvement in daily functioning (e.g., less trouble sleeping, less anxiety in social situations).
 3. **62.5%** neutral as far as noticing an improvement in physical well-being (e.g., fewer headaches, improved stamina)
 4. **50%** Neutral as far as being less likely to self-medicate (with drugs, alcohol, food, work, etc.) to deal with issues of sleep, anxiety, anger, &/or stress.

Table 7

Mean Scores for Veterans Completing Pretest and at least One Posttest (n = 8)

Item	Pretest		Posttest #1	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1	2.38	1.30	2.38	1.30
2	2.13	0.99	2.38	1.19
3	3.50	0.93	3.38	0.74
4	3.13	1.25	3.00	1.07
5	3.50	1.41	2.75	1.39
6	3.00	1.51	3.13	1.36
7	4.25	1.04	3.63	0.74
8	3.63	1.06	2.88	0.99
9	2.88	1.25	3.00	1.31
10	3.38	1.60	3.75	1.39
11	3.88	1.13	3.75	0.89
12	3.75	1.49	3.13	1.46
13	3.13	1.64	2.88	1.46
14	3.13	1.46	3.00	1.31
15	3.75	1.49	4.00	1.07
16	3.13	1.46	2.75	1.04
17	3.00	1.20	3.25	1.04
18	2.13	0.99	2.63	1.30
19	1.71	0.76	2.25	1.39
20	2.63	1.30	3.00	1.29
21	1.13	0.35	1.00	0.00
22	2.88	1.25	2.88	1.25
23	3.50	0.93	3.50	1.07
24	4.00	1.31	3.88	1.13

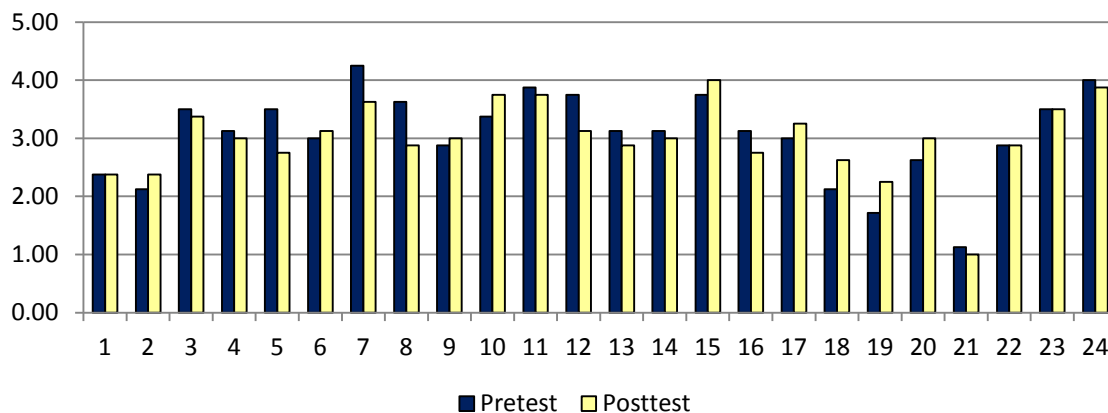


Figure 77. Graphic depiction of mean pre/post scores for Intake Survey Wellness Scale

Table 8

Mean Scores for Veterans Completing Pretest and Two Posttests (n = 4)

Item	Pretest		Posttest #1		Posttest #2	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1	3.00	1.63	2.00	0.82	1.75	0.50
2	2.50	1.29	1.75	0.50	1.75	0.50
3	3.50	1.29	3.25	0.96	2.75	0.96
4	3.25	1.71	2.75	1.26	2.00	0.82
5	3.25	1.71	3.25	1.50	2.75	0.96
6	3.00	1.83	2.75	0.96	2.50	1.29
7	4.50	0.58	3.50	0.58	2.75	0.96
8	3.50	1.29	2.75	0.96	2.25	0.50
9	3.00	1.63	3.00	1.41	2.00	1.41
10	4.00	1.41	3.75	0.96	3.00	1.15
11	4.25	0.96	3.50	1.00	3.25	1.26
12	4.00	1.41	2.75	0.96	3.25	0.96
13	3.50	1.73	2.50	1.29	3.25	1.50
14	3.50	1.73	2.75	0.96	3.25	1.50
15	3.75	1.89	3.75	1.26	3.75	1.26
16	3.50	1.73	2.75	1.26	2.25	0.96
17	3.25	1.50	2.75	0.96	3.00	1.83
18	2.50	1.29	2.75	0.96	3.00	1.83
19	1.75	0.96	2.25	1.50	2.75	1.50
20	3.00	1.41	3.00	1.63	3.25	1.71
21	1.00	0.00	1.00	0.00	1.25	0.50
22	3.00	1.83	2.75	1.71	2.75	1.71
23	3.75	1.26	3.75	1.26	3.25	1.50
24	4.25	1.50	3.75	1.50	4.25	1.50

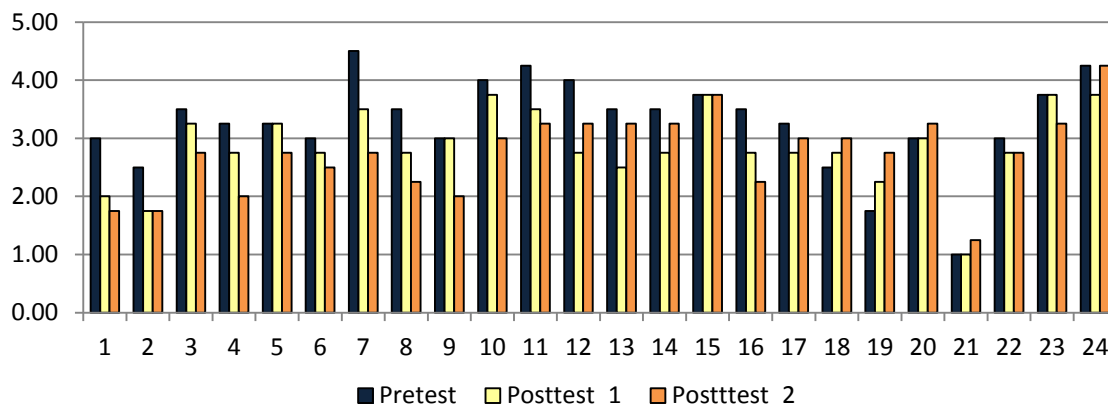


Figure 78. Mean pre/post 1/post2 scores for Intake/Exit Survey Wellness Scale

IV. EFP Class Check-In/Check-Out Self-Report "Wellness Scale"

- a. Description: Based on averaged check-in/check-out ratings on 10-point wellness scale (1 = not well ("I'm in bed, I'm not getting out) → 10 = fantastic (rockin', on top of the world));
- b. Outcomes (Table 9): On average, significant improvement from pre-class to post-class ratings (one-tailed paired sample t-test for means, hypothesize mean difference = 0)

Table 9

Self-Report Class Check-In/Check-Out Scores

Group	M_1	M_2	df	t	p	g
Session II						
Men	5.7	8.4	4	-3.77	0.01 ^a	1.81
Women	4.73	7.66	4	-6.91	0.002 ^a	2.94
All	5.21	8.02	9	-6.91	0.000 ^b	2.30
Session III						
Men	4.58	8.02	4	-4.85	0.004 ^a	1.38
Women	5.55	7.5	4	-5.34	0.003 ^a	2.08
All	5.06	7.76	9	-5.98	0.000 ^b	1.56

^a significant at $p < 0.01$

^b significant at $p < 0.001$