Horses' Roles in Equine-Assisted Psychotherapy: Perspectives of Mental Health Practitioners

Ping-Tzu Lee[1] & Carole Makela[2]

Abstract

Equine-assisted psychotherapy (EAP) uses a team approach (a mental health practitioner and an equine specialist) to incorporate horses into mental health programs. This study explored horses' behaviors and roles that affect changes in clients' mental health. This study was conducted using a constructivist narrative approach and guided by biophilia hypothesis which suggests that, as a consequence of evolution, humans have a built-in tendency to pay attention to animals and nature. The more humans come to understand other creatures, the more they value both other creatures and themselves. Two semi-structured, individual, face-to-face interviews were conducted with each of eight participants who had at least two years of experience practicing both traditional talk therapy and EAP. Thematic analysis identified three main themes: horses actively use non-verbal language to communicate with therapists and clients; horses are naturally therapeutic by being themselves; clients actively engage with horses in EAP. EAP is an innovative mental health treatment approach. This study deepens our understanding about horses' roles in EAP. The biophilia hypothesis provides a theory to explore horses' roles in mental health, which helps to connect EAP theory and practice.

1. Introduction

The Equine Assisted Growth and Learning Association (EAGALA) is a nonprofit organization that connects mental health practitioners and equine specialists who practice equine-assisted psychotherapy (EAP) and equine assisted learning (EAL) in 49 countries (EAGALA, 2013). "EAP incorporates horses experientially for emotional growth and learning. It is a collaborative effort between a mental health professional and a horse professional working with clients and horses to address treatment goals" (EAGALA 2009, p.13). Using a team approach, the equine specialist focuses on the physical safety of clients and horses' nonverbal communication. The mental health practitioner focuses on the clients' emotional safety and nonverbal communication. All EAP activities are on the ground (unmounted activities) (EAGALA, 2009). Clients' behavioral patterns and emotions can be elicited from ground work with horses. During an EAP activity, a mental health professional's and an equine specialist's roles are to observe clients' and horses' behaviors and emotions. After finishing the activity, the therapist and the equine specialist bring what they observed and discuss horses' and clients' behaviors and interactions with the clients, which helps clients develop self-awareness. At the 13th EAGALA annual conference in March 2012, Dr. Paul Haefner expressed there are primary and unsolved questions in EAP, such as, why and how clients' change occurs? and what are the roles of horses? Dr. Haefner suggested that qualitative research could play an important role in EAP and foster creativity in the development of new assessment strategies.

---

[1]PhD, School of Social Work, Colorado State University, 1586 Campus Delivery, Fort Collins, CO 80523-1586. Email: pingtzu.lee14@alumni.colostate.edu , 940-312-8104

[2] PhD, School of Education, Colorado State University, Fort Collins, CO, 80523-1588. Email:carole.makela@colostate.edu , 970-491-5141

Recently, more mental health practitioners have been incorporating horses into their practices. Each EAP practitioner's experiences are unique, but some patterns can be found from their experiences. The dearth of research in EAP makes this field relatively uncharted (Pugh, 2010). So far, no journal articles exploring mental health practitioners' experiences with EAP were found. Six doctoral dissertations (Abrams, 2013; Devon, 2011; Esbjörn, 2006; Frame, 2006; Gilbert, 2013; Lujan, 2012) and a master's thesis (Pugh, 2010) investigated mental health practitioners' perspectives with EAP or equine-facilitated psychotherapy (EFP). Table 1 provides information from the thesis and dissertations (Lee, Dakin, & McLure, 2015). EFP, developed by the Professional Association of Therapeutic Horsemanship International (PATH Intl.), is practiced by a mental health practitioner and an equine specialist (PATH Intl., 2012). While EAP involves 100% ground (unmounted) activities, EFP involves both mounted and unmounted activities. In this study, the term equine-assisted therapy (EAT) is used as a general term when the specific horse-related mental health treatment approach is not identified, or when multiple horse-related mental health treatment approaches are used.

Table 1a: Equine-Assisted Psychotherapy Studies Exploring Mental Health Practitioners' Perspectives in Theses and Dissertations

Background	Study Design	Participants	Findings
Abrams (2013): Explores therapists' treatment for veterans with posttraumatic stress disorders (PTSD). (EAP, EFP, Epona Equestrian Service) [b]	Qualitative, phenomenological; individual, semi-structured interviews	5 therapists with experience incorporating EAP or EFP with veterans	Reasons therapists chose EFP or EAP: 1) emphasizes nonverbal communication; 2) helps clients gain confidence; 3) helps build trust between therapists and Veterans and between Veterans and horses; 4) motivates clients to engage in the treatment.
Devon (2011): Explores how therapists perceive treatment for adolescents with attention deficit hyperactivity disorders (ADHD). (EAP)	Qualitative (specific qualitative discipline not indicated); individual, semi-structured interviews	8 EAP therapists	Participants' perceptions about EAP: 1) mirrored clients' actions and reactions; 2) promoted impulse control; 3) demonstrated and taught honest communication, trust, boundaries, and leadership; 3) adolescents had heightened non-verbal, sensory, and reactive skills, which were similar to horses, so they could relate to each other.
Esbjörn (2006): Explores therapists' perceptions of the major benefits and clinical outcomes. (EAP, EFP, and other approaches (e.g., therapeutic riding and Epona))	Mixed-method: 1): quantitative: mail survey 2): qualitative, grounded theory and heuristic approach; individual, semi-structured interviews	1) questionnaire: 35 therapists; 2) semi-structured interviews with 15 therapists from 1)	Participants perceived horses to be a metaphor for other aspects of clients' lives; horses assisted clients in being attentive and present to the present; physical contact with horses played an important role in EAP and EFP
Frame (2006): Explores the role of horses in treating adolescent depression. (EAP and EFP)	Qualitative research (specifics not indicated); individual, semi-structured interviews	15 therapists, EAP, EFP or both	Participants perceived horses: 1) providing immediate feedback for clients; 2) reducing depression by increasing clients' self-esteem, self-efficacy and decreasing their isolation.
Gilbert (2013): Examines providers' beliefs about the role of horses. (EAP)	Qualitative, hermeneutic and phenomenological study; individual, semi-structured interviews	9 EAP practitioners (4 mental health practitioners, 4 equine specialists, and 1 both)	Interacting with horses viewed as positive: 1) develops a connection with another creature; 2) provides safe platform to express thoughts and feelings; 3) decreases distress; 4) provides metaphors; 5) teaches boundaries; 6) provides role models for social skills and non-verbal communication
Lujan (2012): Explores how therapists practice and their discoveries that they have made about EAP. (EAP and art, play, adventure therapy)	Qualitative, phenomenological, open-ended question survey,	12 therapists; 7 of 12 participants were EAGALA-certified	1) Participants focused on learning skills in group format and went deeper with emotional issues in individual therapy; 2) Metaphors were important component; 3) Progress perceived to be more rapid in EAP than in traditional therapy. 4) Horses were trusted and perceived as knowing what was happening
Pugh (2010): Examines therapists' perspectives about how rescue foals influence at-risk adolescents. (EAP)	Qualitative (specifics not indicated); individual, semi-structured interviews	3 EAP therapists, using a transpersonal counseling approach	Horses were identified as beneficial in therapy: 1) being nonjudgmental partners; 2) providing immediate feedback; 3) helping clients to stay in the present; 4) giving clients an opportunity for reflection and projection

aAdapted from "Narrative Synthesis of Equine-Assisted Psychotherapy Literature: Current Knowledge and Future Research Directions," by P. Lee and E. Dakin, and M. McLure, 2015, *Health and Social Care in the Community*.
bEAP = equine-assisted psychotherapy; EFP = equine-facilitated psychotherapy.

Abrams (2013), Esbjörn (2006), Frame (2006), and Lujan (2012) combined different forms of EAT in each of their studies. Because different approaches of EAT are developed by different agencies under different concepts, analyzing data together without differentiating approaches of EAT may confuse findings. It will be helpful to investigate each treatment approach individually or compare different approaches in one study. Frame's (2006) study is one example that explored differences between EAP and EFP. Doven's (2011), Gilbert's (2013), and Pugh's (2010) studies specifically explored EAP. Doven (2011) focused on examining mental health practitioners' experiences with EAP for adolescents with attention deficit hyperactivity disorders (ADHD). In Gilbert's (2013) study, one of the research questions was to investigate practitioners' (including mental health practitioners and equine specialists) espoused beliefs on the roles of horses in EAP. Gilbert's findings discussed how EAP practitioners perceived the nature of horses and client-horse relationships. In Pugh's (2010) research, three participants, all worked at the same program, adopted a transpersonal therapeutic approach to incorporate rescued foals into therapy.

There are limitations from these studies. Doven's study specifically explored adolescents with a specific diagnosis which limits findings to diverse clients. Gilbert intended to explore horses' roles in part of her study but did not thoroughly examine horses' roles in EAP. Pugh recruited a small number of participants who practiced the same therapeutic approach and were from the same program, which limit diverse perspectives. This study intended to deepen the investigation of mental health practitioners' perspectives about therapeutic factors from horses. If horses are incorporated into therapy, then the horses themselves must play an important role in the process of change for clients. Yalom (1995) defined therapeutic factors as "the actual mechanisms of effecting change in the patient" (p. xi). Based on this definition, the research question is: In EAP, what therapeutic factors from horses do mental health practitioners identify as affecting clients' change?

2. Study Design

Chase (1995) described the narrative approach as having a fundamental interest in making sense of people's experiences and in constructing meaning. The goal of this research is related to participants' subjective experiences of EAP; the question explores the personal construction of experiences. Therefore, a narrative approach aligned with the goal of this research. Further, Guba (1996) said constructivism is an approach that helps fill the gaps between theory and practice. In other words, scientific generalization (e.g., positivism and post-positivism) might not be suitable to study practical problems when practice is more advanced than theory, such as in EAP. Therefore, in this study, we used a constructivist narrative approach to explore community mental health practitioners' experiences.

2.1 Theoretical Structure: Biophilia Hypothesis

We chose the biophilia hypothesis to guide this study because EAP mental health practitioners usually incorporated horses into existing professional theoretical approaches. For example, some authors have discussed how to incorporate EAP into reality therapy, brief therapy, and gestalt therapy (Mandrell, 2006; Trotter, 2012). However, theories related to these therapies do not include the human animal relationship. The biophilia hypothesis addresses the nature of human-animal relationships and originally comes from an evolutionary perspective that assumes that humans and non-human animals co-evolved in the environment. For example, humans rely on animals' signals to tell whether or not the environment is safe (Melson, 2000). Edward Wilson, originator of the biophilia hypothesis, defines biophilia as the "innate [human] tendency to focus on life and lifelike process" (1984, p. 1). This suggests that people have an instinctive and genetically-determined tendency to deeply connect with the natural environment (including non-human animals). The biophilia hypothesis suggests that animals and nature tell us about ourselves and the world. The more humans come to understand other creatures, the more humans value both other creatures and themselves. Wilson (2002) contends that human affiliation with non-human organisms and the ecosystem have complex benefits, which promote psychic and physical well being and help humans evolve adaptive skills for survival.

2.2 Participants

Eight mental health practitioners, who had at least two years of experience practicing both traditional psychotherapy and EAP were recruited. Internship experiences were included in the required of two years of experience, and participants could have experiences with each therapy, separately or simultaneously. Further, each participant must have a graduate level professional degree relevant to mental health and practice the EAGALA approach. The definition of traditional psychotherapy in this study is that psychotherapy sessions are practiced in a therapy room with verbal rather than experiential orientations. Participants were recruited in three ways. First, EAP mental health practitioners the researcher knew were invited. Second, a recruitment email was sent to Colorado attendees of the 2011, 2012, and 2013 annual EAGALA conferences and to certified EAP mental health practitioners who lived in Colorado and New Mexico. Third, an Internet search to identify and contact area practitioners was done. This multi-approach recruitment brought diverse mental health practitioners with different experiences, perspectives, and professional areas to the study. From now on the term participants is used rather than EAP mental health practitioners. Four participants were social workers and four participants were counselors. Because of the cost of travel, seven participants lived in Colorado and one in Arizona. The eight participants were interviewed with the goal of having enough material to represent the richness and diversity of their EAP experiences (Josselson & Lieblich, 2003). Table 2 represents participants' demographic profiles. Their ethnicity, cultural, and educational backgrounds were diverse. Michael is an Africa American; all others are White. Jean-Jacques is originally from Switzerland; Pia is originally from the Netherlands. Ages ranged from 47 to 65 years.

Their practice of traditional psychotherapy ranged from two to 38 years and practice of EAP two to 14 years. Some participants chose to use their names in this study, while other participants chose to be identified by pseudonyms.

Table 2: Participants' Profiles—Eight Practitioners

Name	Kriss	Michael	Pia	Becky	Jean-Jacque	Sue	Julie Anne	Thom
Gender	F	M	F	F	M	F	F	M
Professional background	Counselor	Counselor	Social worker	Social worker	Counselor	Social worker	Counselor	Social worker
Educational background	Psychology	Counseling	Social work; child and family study	Social work; human service	Counseling; political science	Social work; psychology	Counseling; zoology	Social work; animal husbandry
Age (years)	57	61	54	49	51	50	47	65
Practice traditional psychotherapy (years)	35	38	31	4	5	20	7	2
Practice EAP (years)	12	14	4	3.5	4	10	3	2
Own herd	Owns 1 horse	Owns at least 1 horse	Yes	Yes	Yes	Owns 2 horses	No	No
EAP location	Rent farm	Rent farm	Own farm and rent farm	Own farm	Own farm	Rent farm	Rent farm	Rent farm
Type of horses	Large and miniature	Large and miniature	Large and miniature	Large	Large and miniature	Large	Large	Large

2.3 Data Collection

Each participant was interviewed twice, and each interview lasted between one and two hours. The participants were sent the interview guide (table 3) four to seven days prior to the first interview to initiate their thinking. Two interviews of each participant on different days enabled the interview questions to be answered in depth, to establish rapport with each participant, and to gain further insights that could be explored in the second interview. The two interviews were on different days to avoid fatigue from a long interview and to provide time to reflect and digest their experiences. The first interview provided opportunities to know more about participants' life stories and the second to better understand their EAP experiences. The two interviews spanned a period ranging from two days to three weeks. Interviews were conducted in the participants' therapy rooms, participants' home, my home, and a hotel room. Each of these locations was quiet and provided privacy.

Table 3: Guide for Interviews

Interview Session	Focus	Questions
1. Life Story Interview	1.1 To build rapport 1.2 To understand participants' life stories as related to equine 1.3 To elicit some of the EAP experiences among EAP therapists	1.1 Tell me anything about you that you would like me to know more about. 1.2 What are your experiences with horses? 1.3 What kinds of experiences (e.g., training or volunteer experiences) brought you into EAP or an EAP-related area? 1.4 What was the turning point that led you to begin to incorporate horses in your practice? 1.5 How has EAP influenced you in your personal life?
2. Experiences and Perspectives on EAP	2.1 To further elicit participants' EAP experiences 2.2 To elicit what participants feel about and gain from the interview process	2.1 From your perspective, how do horses help you when you conduct EAP sessions? 2.2 From your perspective, how do horses help your clients in EAP sessions? 2.3 How do horses react differently to different clients in your EAP sessions? 2.4 How do you incorporate EAP into your personal therapeutic approach or theory? 2.5 How have your experiences practicing EAP influenced your views of therapy? 2.6 From your perspective, what kinds of skills do EAP mental health practitioners specifically need to have that are different from skills needed by traditional mental health practitioners? 2.7 From your perspective, how do clients react differently to EAP versus traditional psychotherapy? 2.8 From your perspective, what kinds of clients are more suitable for EAP, and what kinds of clients are more suitable for traditional psychotherapy? 2.9 What, if any, limitations have you encountered when practicing EAP? 2.10 What kinds of adjustments do you need to make when conducting EAP with different age groups (e.g., children, teenagers, and adults)? 2.11 What kinds of adjustments do you need to make when conducting EAP with populations who have different presenting mental health symptoms (e.g., eating disorders, trauma, and ADHD)? 2.12 What have you observed about how different populations have reacted differently in EAP sessions? 2.13 How do different EAP settings (e.g. arena, round pen, pastures, indoor setting or outdoor setting) influence clients and horses? 2.14 How was it for you to be talking to me in this way? 2.15 What questions do you have for me as we end our time together?

2.4 Analysis

Thematic analysis was the primary method of analysis with several steps. First, the first author transcribed each of the recorded interviews, which was the first time to immerse in the data for preliminary analysis (Braun & Clarke, 2006). After finishing the transcripts, a native English speaker listened to the recordings and checked the transcripts. After receiving her revisions, the first author read and corrected the transcripts and then each participant checked the responses they shared. After getting the feedback from participants, the authors (referred to as we) read the transcripts and followed the research question to develop codes and the codebook. In the coding process, we combined inductive and deductive coding. The first coding, deductive analysis, was driven by theoretical and analytic interests (Braun & Clarke, 2006). The interview questions, which were derived from the research question, guided the coding process. Inductive analysis was used in the second coding. This form of thematic analysis was data-driven to focus on what the sentences wanted to tell us (Braun & Clarke, 2006). In this stage, we developed additional codes and added to the codebook. In the analyses, we sorted each code and utilized the computer-assisted qualitative software NVivo 10 to help organize the data.

After coding, we searched for categories, sub-themes, and main themes. Braun and Clarke (2006) discussed "What counts as a theme?" and "What size does a theme need to be?" Ideally, there will be a number of instances of the theme across the data set, but more instances do not *necessary* mean the theme itself is more crucial. As this is qualitative analysis, there is no hard-and-fast answer to the question of what proportion of your data set needs to display evidence of the theme for it to be considered a theme…the "keyness" of a theme is not necessarily dependent on quantifiable measures – but rather on whether it captures something important in relation to the overall research question. (p. 82) "Keyness" was used as the guideline to develop themes instead of primarily depending on frequency of codes. In other words, if a participant's experience captured an important element to answer the research question, we developed a theme for the important element. At the same time, we indicated how many participants shared the same element, so readers gain a perspective of the prevalence of themes. After discovering potential themes, we reviewed the themes to consider whether there was internal homogeneity and external heterogeneity, and whether quotes under each theme were coherent. After reviewing the themes, we started to define and name them.

2.5 Validity

Research validity is important because it helps if readers trust findings and apply the findings in decision making (Lincoln et al., 2011). Lincoln et al. suggested that criteria for quality are rooted in epistemology. There are five authenticity criteria for judging the processes and outcomes of constructivist inquiry: fairness, ontological authenticity, educative authenticity, catalytic authenticity, and tactical authenticity. "Fairness" means all participants' voices should be apparent in the report, and that neglecting certain participants' voices is a form of bias (Lincoln et al.). To address this concern, we tried to include each participant's voice in the narrative of the analysis. "Ontological authenticity" means that as participants are more aware of their experiences, their perspectives become more sophisticated after their sharing. This also includes a more complete and complex understanding of themselves and others (Lincoln et al.; Rodwell, 1998). The study achieved ontological authenticity through two in-depth interviews with each participant. During the second interview, participants were asked, "How was it for you to be talking to me in this way?" Each of the participants confirmed the positive value of interviews. Selected quotes illustrate this positive value. It was interesting. I have to talk about a lot of things and reflect on some of reasons why I do the work. That is good for me. (Michael) I am an extrovert, talking out loud allow me to refine my thinking.…You asked very good questions… it helps me see more clearly where I am at now at this juncture in my life with this work. It is a wonderful, wonderful opportunity. Thank you. (Jean-Jacques) Like I said before putting these things into words are just so hard… it is really forcing me to think about and put together my thoughts into words. I have not done that really, out loud or on paper about what it is, so just got me to think "What do I think about this? How does it impact me? How does it impact therapy?" I like that part. (Julie Anne)

It is being reflective… It is being good for me to be able to think about what is really going on and put some order to it you know and put words to it. (Thom) All participants shared directly or indirectly that the interviews helped them to be more aware of themselves or their EAP experiences. Four participants (Michael, Jean-Jacques, Julie Anne, Thom) confirmed that the interviews helped them have a complex understanding about EAP through reflection. Ontological authenticity was achieved after the interviews. "Educative authenticity" means participants become more understanding and respectful of the values of others (including researchers and other participants), and they understand how others' values frame their own perspectives. Participants may agree or disagree with others' constructions, but they appreciate their diversity and complexity (Lincoln et al., 2011; Rodwell, 1998). Two participants, Becky and Thom, mentioned that they would like to read other participants' perspectives after the second interview. The study opened up their curiosity and they want to know other participants' perspectives. If it gets published, let me know, so I can read the article. I would love to see what your conclusion from all the research you have done. (Becky) Whenever this project is completed that I may have an opportunity to read, I love to read it…cause I can learn a lot from it. Because we (other participants) were all asked the same questions, I would love to have that whenever happens. (Thom) Each participant has been provided a copy of the completed study. Part of the educative authenticity may be achieved after participants read the final report."Catalytic authenticity" means the process of research stimulates and evokes action by participants. For example, in the follow-up researchers may hear from participants that they have taken action for positive social change (Lincoln et al., 2011; Rodwell, 1998). "Tactical authenticity" is when the process of research empowers action on the part of the participants, the change must be effective and desired from the point of view of the participants (Lincoln et al., 2011; Rodwell, 1998).

Because we did not conduct follow up interviews or discuss findings with participants, the varied nature of actions and implementation in their EAP are not known. Therefore, the catalytic authenticity and tactical authenticity is not known.

3. Findings

To explore horse-specific therapeutic factors that affect change for clients in EAP, we used "keyness" as the guideline to develop themes instead of primarily on quantifiable measures. After conducting inductive and deductive analyses, three themes were discovered in the data related to the research question. There are detailed in Table 4 representing main themes, sub-themes, and categories.

· Horses actively use non-verbal language to communicate with therapists and clients (theme 1).
· Horses are naturally therapeutic by being themselves (theme 2).

We categorized data into the two themes according to how participants interpreted horses' behaviors. If participants believed horses actively use non-verbal language to communicate with them and their clients, data were included under theme one. If horses were perceived as naturally therapeutic and their presence promoted positive changes, the data belonged to theme two.

· Clients actively engage with horses in EAP (theme 3).

Each theme and its sub-themes are explored with participants' explanatory quotes here.

Table 4: Therapeutic Factors from Horses in EAP

Main Themes	Sub-themes	Categories
1. Horses actively use non-verbal language to communicate with therapists and clients	1.1 Horses remind therapists when to step back 1.2 Horses confront clients to be authentic 1.3 Horses reflect clients' inner world 1.4. Horses deeply connect with clients	
2. Horses are naturally therapeutic by being themselves	2.1 Similar characteristics across different horses	2.1.1 Horses are playful 2.1.2 Horses are big 2.1.3 Horses respond to clients in the present 2.1.4 Horses are calm 2.1.5 Horses help clients' stay in a state of mindfulness 2.1.6 Horses' physical presence can be comforting
	2.2 Different characteristics across different horses	2.2.1 Horses have different personalities 2.2.2 Horses represent different issues 2.2.3 Horses have different stories
3. Clients actively engage with horses in EAP	3.1 Clients find metaphors 3.2 Clients project their thoughts or feelings onto horses 3.3 Clients develop empathy toward horses	

3.1 Horses Actively Use Non-Verbal Language to Communicate with Therapists and Clients (theme 1)

According to the participants, horses actively use non-verbal language to communicate, meaning that horses use specific behaviors to react to clients or therapists. Participants views horses' behaviors as something intentional for clients' or therapists' needs.

3.1.1 Horses Remind Therapists when to Step Back

Two participants (Jean-Jacques, Pia) shared that sometimes horses use behaviors to tell participants to step back or go away, meaning that participants are signaled to give space to clients and horses. In other words, participants have to observe horses and understand what horses want to communicate to them. Jean-Jacques described how his alpha mare used slightly aggressive behavior to tell him to stay back creating a space just for the horse and clients. The alpha mare … She is very sensitive to people in distress.

When a client comes who is either suicidal or very sad, very depressed that horse goes straight to her and stands in between me and my clients. If I try to process or talk, that horse just sends me away. … She turns her head to me and pushes me away, so I step back.…When I step back, the horse will come closer, sometimes even curl around the client. Usually people end hugging the horse and crying, and feeling healed and heard and safe while crying. (Jean-Jacques) Pia had the same experience, saying: The way horses really help me I would say most profoundly is to know when to back off…For instance, horses all of the sudden right in front of the client will just drop down and lie down. …So just let that be and not ask questions from my own curiosity… I call it the power pause and horses really do give me that. (Pia) From Pia's perspective, when horses lie down in front of clients, it symbolizes a pause. It seems the horse tells her to step back and keep quiet in the moment.

3.1.2 Horses Confront Clients to be Authentic

Four participants (Becky, Jean-Jacques, Julie Anne, Kriss) shared that horses sometimes behave aggressively to push clients to connect to their authentic emotions or to work on their issues. The example explained how a horse pushed a client to be emotionally congruent as Jean-Jacques told how a horse represented a client's issue and pushed the client to work on the issue. She (the horse) is perfectly safe to be around. …She is even good with babies, but if you are fighting your emotions or not in touch with your emotions, she can become dangerous. I have seen this horse challenge people, push them with her nose, be very aggressive, start pulling them around … Some horses will go to the extreme of becoming a little bit defiant with people who suppress their emotions. And these are the same horses that when these people suddenly accept their emotions, are able to name them, these horses' behavior will change and will become very accepting. To me that is the validation of authenticity. (Jean-Jacques) Because horses were described as validating authenticity, they were seen as being able to help clients be aware of how they are feeling and what they are thinking in the moment.

Julie Anne said:

I had this guy. He got stepped on. He was leading a horse around, and the horse just pushes him, steps on his foot. It is like he could break his foot …Of course the horse is doing that on purpose because the horse could go to the end of the lead rope. But it pushes this guy and steps on him. He didn't even notice. And that is what is going on for him is that he would not even notice his own pain. He would numb out… He did not even try to move the horse…just kept the horse stepping on this foot. …No boundary at all. The horse tried to show him. But I am like, "What do we do? We intervene?" The horse is gonna break his foot if he does not even feel his own pain. (Julie Anne) From Julie Anne's perspective, the client blocked his feelings from the outside world. When he led a horse, he did not really connect to the horse. That was the reason he did not notice the horse was hurting him. Because horses' behavior is concrete, confrontational, and revealing, at some level clients are forced to connect to their inner selves if they want to seek a real connection with the horses. Horses' behaviors help therapists know more about how their clients' connection to the outside world.

3.1.3 Horses Reflect Clients' Inner World

Most of the participants (Becky, Jean-Jacques, Julie Anne, Kriss, Thom) described experiences where horses engaged in unusual behaviors that reflected clients' issues. They said horses seem to mirror what's inside of clients or how clients feel. They believed the horses did that for the clients' needs, that it did not happen by coincidence. I had a session… with two girls whose parents were going through a divorce. …There were so many conflicts between the parents… So, we asked the girls to do an obstacle course. So, they built like stairs, rocks and lava and they have to get across the hot lava on these rocks to this other side. Well, they did not notice they set up the stairs. The stairs are like an escape route from the whole thing. The horse actually picked the stair up and turned them over. Somehow the girls weren't paying attention. They moved away from the obstacles. Two of the horses, geldings, these are like horses in their twenties [years old]. One of the horses kept grabbing the other horse's front leg and picking it up in its mouth, which is such a weird behavior. ... Then the horses started rearing up like stallions and fighting…They were going for the jugular veins and they kept rising up. They looked like two stallions fighting.… The girls just like, "ah~ (scared)." [I asked] "What does this remind you of?" [They said] "That is just like our parents fighting." … The horses act out the parental fight. And we said "what do you need? You know, this is very scary situation for you." They said "we need a wall." ... The biggest gelding walks in front of them (girls) and creates a wall in between them (between two girls and two fighting horses). And we're like, "How do you feel now?"

They started laughing because they ask for a wall and the horse walks in front of them. The horse is so tall. They can no longer see their parents fighting. From there, we try to figure out what you can do to keep yourself safe, right? What kind of wall do you need to keep yourself safe right now in your situation? (Julie Anne) This is an example that Julie Anne gave about horses' unusual behaviors and how they act out clients' inner landscapes. Thom and the first author had a conversation about horses using unusual behaviors to reflect the clients' inner world: Everyone who does this kind of work I have ever talked to has stories about just phenomenal things that happen to people. But for us to ever get recognized, and for insurance to recognize it … We need some good research and we need to be able to measure some of the things that happen for the clients, [and] for the horses too. So that is the big challenge that we have ahead of us. (Thom) Thom pointed out an important issue with EAP. Because mental health practitioners do not know why some horses act out or display unusual behaviors to reflect clients' inner worlds, it becomes very hard to share these experiences with other professionals. Kriss described her experiences with horses, "It is so uncanny sometimes," and "It is the mystery." Jean-Jacques had a sense of humor about his horses' unexplainable behaviors, he said, "But why, I have no idea. …You are welcome to go in and interview them (means the horses)." These participants observed how horses' behaviors reflected clients' issues, but they expressed that their observations were hard to understand.

3.1.4 Horses Deeply Connect with Clients

Four participants (Becky, Jean-Jacques, Kriss, Thom) found that some horses respond very well to clients' specific emotions. Horses might show behaviors that make clients feel the horses are "with them" and understand them. When this happens, clients feel safe to show their authentic emotions to the horses. Often a deep connection forms between client and horse that helps a client feel safe in expressing his/her emotions. The horse will come closer, sometimes even curl the neck around the client. And usually people end hugging the horse and crying, and feeling healed and heard and safe while crying. That is that particular horse's specialty. I will not do it… I think that horse has saved lives. I can think of a number of young women, not just young, who sometimes express intense despair and pain, and she will come and run to them and be with them. (Jean-Jacques) I always think with the shelter clients it is like a catharsis for them…They need to sob and cry. … They can do that here. And the horses are usually …just there for the clients. Willie (horse) particularly will just come and stand very close when it happens. The clients will rub their horses when they are crying. I think that helps them to feel that: "[the] horse is there for me, and that horse is taking my emotion. And it is ok with it." [The horse is] not trying to move away, not do anything mean to defend themselves. Just take the emotions. It is very beneficial to the clients. (Becky) Both Becky and Jean-Jacques have their own herds with whom they can practice EAP. They know their individual horses very well, and they have found that some of their horses respond very well to clients' specific emotions. When a horse approaches a client and a client hugs or rubs the horse, it is a visible and mutual connection.

3.2 Horses are Naturally Therapeutic by being Themselves (Theme 2)

In theme two, horses are not seen as doing something specific for clients or therapists. Their presence and natural characteristics simply promote positive changes in therapy. There are two subthemes: (a) similar characteristics across different horses, and (b) different characteristics across different horses. The first sub-theme means most horses have natural characteristics to promote healing in therapy--horses are playful, big, and calm; they respond to clients in the present, raise clients' awareness, and their physical presence can be comforting. The second sub-theme emphasizes each horse's individuality--different personalities, issues, and life stories.

3.2.1 Similar Characteristics across Different Horses: Horses are Playful

Four participants (Michael, Pia, Sue, Thom) reported clients became more relaxed and able to work on their issues when with horses than when they are not. They described clients as being more motivated to engage in therapy because horses are playful or their behaviors are seen as being playful. Playfulness from horses brings joyfulness to clients. Thom shared a story about working with a 17-year old boy. He said: "What I want to do more than anything is to laugh.…Nothing is funny anymore. I make people laugh, but I want to laugh." … So a couple of sessions in, he enjoyed being with horses, he likes being away from the crowd, just the two of us out in the field of the pasture and horses. And about the third time out there this horse all of a sudden just did something bizarre. And we looked at each other, made eye contact and he kind of smiled…and then the horse looked at us. And whatever the bizarre thing was the horse then did it three times stronger. And he started laughing. …I said, "How did it go today?" He said, "You know, for a little while out there, all that weight lifted off for me." (Thom) Michael gave an example to explain how horses relieve clients' intense emotions.

Something special takes place when they (clients) get out in the arena and essentially play with the horses, and something brings a little bit of joy, a little bit of relief from what they are feeling, and a distraction from the focus on the painful stuff. And so, it kind of helps them get their life back and give children their childhood back. (Michael) Both quotes illustrate that when clients work with horses, their attention is focused on the horses and environment instead of their own pain. Sometimes horses' playful behaviors can relieve the intensity of clients' emotions as they work on their issues and move forward being more relaxed.

3.2.2 Similar Characteristics across Different Horses: Horses are Big

Five participants (Becky, Jean-Jacques, Julie-Anne, Kriss, Thom) described horses' size as being potentially clinically helpful. I think being in the arena with 1,000 pound animals gets the brain very, very alert because the person is out of their comfort zone. And my understanding is that the brain really turns on for learning when you are out of your comfort zone– but not so far out of your comfort zone that you are in fight, or flight, or freeze. (Julie Anne) From Julie Anne's perspective, horses bring clients into a learning zone, not into a flight zone. We interpreted "the brain really turns on for learning" means that clients are highly engaged in therapy. According to Becky's and Jean-Jacques' perspectives, the large size of horses might be perceived as a challenge (Becky's quote) or support (Jean-Jacques' quote) to clients who are suffering emotional distress. Particularly for clients who have been direct victims of violence, working with a very large animal and putting your trust and faith in that animal, and also at the end of the session when you have been up close and personal with that very large animal and you have not been hurt. It is very empowering. It builds trust. It builds self-confidence. (Becky) I have seen a client, at some point, said she is thinking of suicide. … She cried. That big mare walked 50 yards and came right next to her and stayed with her, and would not leave her. Because she is the alpha of the herd, all the other horses followed her and they were all around that woman who felt … Wonderful, wonderful support. (Jean-Jacques) If clients build a trusting relationship with horses, they might internalize the strength of big animals or build confidence from seeing that they can take care of themselves.

3.2.3 Similar Characteristics across Different Horses: Horses Respond to Clients in the Present

Six participants (Becky, Jean-Jacques, Julie Anne, Kriss, Michael, Pia) shared that horses respond to clients who are in this moment instead of in the past or the future. Horses interact with clients more fully in the present moment every time when they see them. The horses give the immediate, present-centered feedback to the client, so we can tell what the client's thoughts will come out and there will be a shift to the horse. And we ask, "What were you thinking just then? What was happening inside of you just then?" And the horse is just like a biofeedback mechanism almost. They will give immediate feedback. So that clients get to see themselves. (Julie Anne) From Julie Anne's perspective, the immediate, present-based feedback from horses helps clients know more about themselves. Becky said, "I always say the horses do what they need to do in that moment, and usually not what I think they will do, but whatever they do is what they need to do." This statement showed that Becky has tremendous trust in horses' present and intuitive feedback to tell her what is most important in the moment.

3.2.4 Similar Characteristics across Different Horses: Horses are Calm

Half of the participants (Becky, Michael, Pia, Sue) stated that horses' calm presence helps clients mentally and emotionally slow down. Becky said, "There are just something beneficial about being around horses that helps people calm down. Sue said, "Being out with horses and doing really simple tasks helps them (children) slow down." Michael explained how horses' calmness affects clients. Because there is a calming influence…they (clients) seem to be drawn to horses. They want to have that contact and seem to comfort them. Horses are very quiet, so people will tend to quiet a little bit.…They have a tendency naturally for their anxiety levels to go down…There is a tendency for them to just slow down and be in the moment with horses. So that means they can make that shift from being very logical, very cerebral to being more affectionate, more intimate, more emotional, more in the present with their own emotions and emotions with other family members. And they become more aware of how they are interacting and what the needs of other family members may be. (Michael) From Michael's perspective, when horses' calmness slows down clients' minds, clients' rational minds no longer occupy their whole attention. When clients become calm, they get in touch with who they are. A new space will open for clients to see relationships and accept new possibilities or changes. Michael described how horses are calming and help him slow down, and become calmer as a therapist. It (horse) slows me down– slows down my thought process.

It gives me an opportunity to sort of attend to the client in a different way without sort of that urgency that I have to be affecting changes … I think in the office, in traditional therapy to always be looking at I have to be affecting changes…And kind of take that pressure off…We put that pressure on ourselves and it can cause [us] to lose our objectivity… When I say I slow myself down I slow myself down in my head more than anything. And that way I am not tempted to try to live up to my own expectations. I am freer to understand what clients' expectations are and try to meet them at that place. (Michael) When Michael is focused on trying to meet to his own expectations, he may lose focus on his clients. Thus, when he feels a sense of urgency to affect change, change becomes paradoxically less possible because he is not as present with his clients. In other words, horses' calmness help him slow down and to be fully present with his clients.

3.2.5 Similar Characteristics across Different Horses: Horses help Clients' stay in a State of Mindfulness

Brown and Ryan (2003) defined mindfulness as individuals paying attention to being present and focused on the current experience (including emotional states) of themselves and others. Three participants (Jean-Jacques, Julie Anne, Kriss) indicated that horses help clients to be in the present and attend to how they are relating to the environment, putting them in a state of mindfulness. Doing this kind of larger than life, 3D kind of exercises, I think it opens you up because you have to be highly aware. …I tell them at the beginning of the session. …I may say, "Let's just talk a little bit about safety issues. But mainly you need to pay attention. You need to pay attention to yourself and to the horses and to me."… If you don't pay attention, then you will get hurt. But isn't that like life? … It opens the clients up in a way that they maybe don't get opened up all the time. (Kriss) According to Kriss' perspective, when clients are not in the here and now, they block a lot of information from the outside world. "Open up" means that clients get out of their shells and

3.2.6 Similar Characteristics across Different Horses: Horses' Physical Presence can be Comforting

Four participants (Becky, Jean-Jacques, Kriss, Michael) shared that clients might pet or brush horses as the horses stand close. Kriss shared how a miniature horse comforted her client. This client spent 30 minutes just kneeling by the horse. … I did not have any need to make her do anything else cause that is what she wanted to do. She was petting the horse and crying … This is mini horse just standing there and healing for her. (Kriss) Further, the softness and warmth from horses comfort clients. Michael said: Horses' bodies are warm. They have hair on them. We got a child…That whenever he was in the arena near the horse, he would just walking over and leaned his face on. We have another one that did that… They just want to lay their face on the horse. It is warm. It is like a pillow. (Michael) According to these participants, horses naturally provide comforting stimulation. In psychotherapy, touch can be an issue between therapists and clients. Horses provide a warm touch, which participants cannot offer.

3.2.7 Different Characteristics across Different Horses: Horses have Different Personalities

Jean-Jacques and Becky described how some clients tended to connect to a specific horse based on personality, and vice versa. This connection promotes the healing process. Both Jean-Jacques and Becky have a herd of horses with which to practice EAP. They know their individual horses very well. Willie is the horse that really responds to people who are very sad. For whatever reason, he really picks up on that. … He might not really interact very much, but he stands very close [to clients]. Rissy (horse) responds to clients who are loner and or they are left out. People feel that way usually pick her to work with her. Clients who are working on trying to find their voice usually want to work with Randa, and she is the boss in the herd. She is a boss in a very quiet way. (Becky) This horse is very sensitive. She is an Arabian and she is a little bit passive aggressive. The only client that she really responds well to is a client of mine who might have antisocial personality disorder. (Jean-Jacques) According to Becky's and Jean-Jacques' perspectives, a horse resonates with certain people. The connection gives clients emotional support or helps clients work on their issues in EAP. It can be difficult to separate horses' personalities from their issues because extreme personalities often lead to other issues. When horses' external behaviors seemed likely inherent, we categorized these as "Horses have different personalities." If horses' external behaviors are acquired and these behaviors are likely related to their external environments, these were categorized as "Horses represent different issues."

3.2.8 Different Characteristics across Different Horse: Horses Represent Different Issues

Jean-Jacques and Kriss described how different horses might have had different problems or issues to deal with in their lives and that problems or issues might resonate with particular clients. When this happens, clients might start to work on their own problems with a specific horse. Kriss' horse, Harmony, has an issue of wind sucking.

It is considered an addiction because horses receive a hit of endorphins from this behavior. Harmony's condition helps clients work on their addictions. Harmony has this wind sucking problem. The cribbing addiction problem …Cribbing and wind sucking are stall vices …I have a client with the heroin addiction …She [Harmony] helped him so much. It happened to the point he was in the major recovery from heroin addiction. Because after that one session with Harmony, he realized he was giving too much energy to his addict side and he needed to focus on other things. (Kriss) Jean-Jacques shared how his clients who suffer from borderline personality disorders connect to unregulated rescued horses. The problem is they rescue those babies [baby horses] and keep them together without adult horses, so they grow up without any role models. They are never allowed to become horses in society. It is like children living on a street. They do not have emotional maturity to figure out rules for living together. And there's no adult to show them… this horse arrived here was extremely unregulated. …Until I had a couple of borderline clients who are very unregulated immediately connected with that horse. They were able to work together beautifully. (Jean-Jacques) According to Kriss and Jean-Jacques, when clients and horses share similar issues, they connect to each other quickly.

3.2.9 Different Characteristics across Different Horse: Horses have Different Stories

Different clients tend to connect to different horses based on a particular horse's story. One participant (Becky, interviewed in the first interview with Tony, her husband) mentioned she introduces clients to each horse and shares each horse's story at the first session. Some clients relate quickly to a specific horse's story, and the therapy starts from there. The difference between "horses represent different issues" and "horses have different stories" is that issues are related to psychological or behavioral problems; however, stories are stories which are not related to problems and issues. It is interesting to see when people come in how they bond to one of the horses pretty quickly… I think a lot of the time it's the horse's story. We have Randa. Her nickname is Panda Bear because she is black and white and she is a big teddy bear, you know. This girl we work with that she mentioned before. She had a tattoo on her arm that was said panda bear. Apparently that what her mother calls her, and she just loved Randa. (Tony)

3.3 Clients Actively Engage With Horses In EAP (Theme 3).

Participants described that in EAP sessions, clients actively interact with horses, either consciously or subconsciously. There are three subthemes under this main theme: (a) clients find metaphors, (b) clients project their thoughts or feelings onto horses, and (c) clients develop empathy toward horses.

3.3.1 Clients Find Metaphors

Six participants (Jean-Jacques, Julie Anne, Kriss, Pia, Sue, Thom) described that clients find metaphors for their situations when they interact with horses. In EAGALA's model (2009) and in *Biophilia* (1984), metaphor and analogy are used interchangeably. There are highly technical debates to explore the distinctions between metaphor and analogy (Lopez, 2006), and Lopez proposed to use both terms interchangeably; therefore, we did not distinguish the terms. Kriss shared how her client identified a metaphor between the client-horse relationships and the client-boyfriend relationship. I have a client on Saturday and her boyfriend just broke up with her in a horrible way. And that is what she wants to deal with. And so, right away there is a very very big horse…It is all the pasture, so all the horses can come up to us. … He (the horse) came up and pushed her around like, "Pet me, pet me". She is like "That is funny, that is funny." And I said, "Do you really think it is funny?" She said, "No, I don't think it is funny." I said, "What does this remind you of?" She goes, "That is exactly what my boyfriend just did to me. Just pushed me out of the way." …When leading Harmony, she sees how gentle and cooperative Harmony has been. …Another mare horse came with us and has been very sweet and gentle. She starts to cry. I said, "What is happening now?" She said, "Gosh, this mare horse has just been so nice, and I think that is what I deserve." She is crying and move forward to the point where after that one session, she said, "I can see that is from my best. My highest good that he broke with me because he was very rude to me and I really didn't want to see it. But when the big black horse keeps pushing me around, it is like I cannot ignore it." (Kriss)

From Kriss' perspective, the metaphor helped the client gain an insight and move forward quickly. Thom shared an example to represent how his client, a veteran, got an insight. Recently I work with PTSD. …He has a difficult time. He was with a horse and he started crying. He is a big guy. He was embarrassed because he was crying. I said, "Tell me what is going on?"

And he just started talking about the stuff that he had been through and how he was hurting. And when he got through, the horse defecated and I just said to him, "What did the horse do?" He said, "He took a shit." I said, "Yep. What if he held that in?" He said, "Well, he cannot do that. He would get sick." I said, "Do you think he is embarrassed because he did this?" "No, he didn't care, but it is healthy, right?" I said, "Yep." He said, "Oh, yep, same thing I did. Maybe I need to do more that." (Thom) Thom asked questions and the client found the analogy between holding poop and holding tears. Either holding something in is related to health. Not having a bowel movement is related to physical health and holding emotions in is related to mental health. Kriss' and Thom's examples represented the relief clients felt after finding metaphors by themselves.

3.3.2 Clients Project Their Thoughts or Feelings Onto Horses

The simplest definition of projection is that an individual sees his/her own traits in others (Baumeister, Dale, & Sommer, 1998). Samuels, Shorter, and Plaut (1986) stated that projection is a defense against anxiety. A person sees his/her unacceptable personality or difficult emotions and projects them externally. Most of the participants (Jean-Jacques, Julie Anne, Kriss, Michael, Pia, Sue) shared that clients subconsciously project their feelings or thoughts onto horses. This projection provides a means for participants to understand clients' inner thoughts or issues. Julie Anne said, "I like them to project to the horses; so they are not talking about themselves. They are talking about the horses. They are talking about themselves, but they do not need to know that, right?" Kriss provided a powerful description of projection in a mother and daughter session: The girl was petting Harmony. … so the mom is sort of watching. And all of a sudden, Harmony put her head down really low. …And she (Harmony) stood there for about 5 minutes like that. … It was like none of us were talking. And pretty soon, the girl was crying. I was like visibly moved almost into tears. The mom was crying because it was so emotional. We were just feeling it, and then Harmony lifted her head and the girl said, "We need to get Harmony out of this pasture right now." I said, "Ok." I go, "Do you want to put the halter on it?" She says, "Yes, I do."… "Do you want to lead her?" "Yes, I do." We walked fast out of the pasture. …And then I said, "What do you think is going on?" and she said, "Harmony is being harmed at night." She is being harmed by some male horses. She was revealing sexual abuse because she was going through it. (Kriss)
This projection was an opportunity for the client to reveal her inner world with fewer defenses; it provided an opportunity for Kriss to assess the client's issues. Projection is a very personal inner process. During the interview, Kriss said she did not know how Harmony's behavior triggered the girl's emotions, or why the girl projected her feelings and her realities on Harmony. Projection is a personal psychological defense mechanism (Samuels, Shorter, and Plaut, 1986).

3.3.3 Clients Develop Empathy toward Horses

Two participants (Sue, Becky) shared that clients develop empathy toward horses when they interact with them. Davis (1983) defined empathy as when an individual observes others and then takes a psychological point of view (e.g., sympathy and support) of others. Sue described how she sometimes has children paint on horses, and how children learn to relate to another creature by doing this. I think just painting on a live animal is really unique and new. …A lot of clients like the kids are really concerned that the paints hurt them (the horses). …They are always very concerned about the horses even some of the most aggressive kids…A lot of kids with reactive-attachment disorder or kids with autism. …The ability to trust and relate to other human beings− that is the power of EAP. You can start with them trusting and relating to the animals, to the horses in the case of EAP, and then we help them generalize that to other kids in the group or to their families. (Sue) From Sue's perspective, painting on a horse is unique and unusual. Children naturally develop empathy toward the horse. Becky shared the similar situation when she guided her client to paint on a horse. I said, "artists call their canvas are their support. …Here's the horse. This is your canvas. This is your support. (Becky)…I remember one lady (uncompleted). It was cold, it was kind of cold that day, and she was worried that we couldn't wash the horse (after painting on the horse) (Tony) Becky and Tony observed that the clients expressed empathy for the horses' wellbeing.

4. Discussion

The study explored therapeutic factors from horses that affect changes in clients from eight mental health practitioners' perspectives. Although three themes were discovered, we focus the discussion on connecting the findings to biophilia hypothesis, which will help connect EAP practice and theory. We will discuss non-verbal language, mindfulness, and metaphors in EAP and in biophilia hypothesis.
4.1 Non-Verbal Language in EAP and in Biophilia Hypothesis

Horses used non-verbal language to let participants know when they should step back. Horses might use aggressive behaviors to send participants away or lie down in front of clients to symbolize a pause. This pause seemed to tell participants to step back and keep quiet. Participants have to observe and feel what horses want to communicate to them. Some horses respond very well to clients' specific emotions. For instance, if a client feels sad, a horse might curl its neck around the client and the client might hug the horse. It is a deep emotional connection and mutual relationship. Horses and clients connect on an emotional level, which let clients identify with horses and become emotionally engaged (Gilbert, 2013). Dell et al. (2011) used the terms "spiritual exchange" and "bond" to describe deep connections between clients and horses. "If certain human feelings are innate, they might not be easily expressed in rational language" (Wilson, 1984, p. 109) is Wilson's opinion about verbal and non-verbal language from an evolutionary perspective stated. According to Wilson, verbal languages are rational and limited, and feelings carry much more information than rational languages can convey. The world noted horse trainer Buck Brannaman (2001) had the same perspective, saying: You can ask another person to dance, but even through you say the right words, the way you say them may not attract him or her. On the other hand, the right "feel" can be sensed across a room without a word being spoken…And how do you know? You feel it. "Feel" is the spiritual part of a person's being…Horses have it, and they use it all the time. You can't conceal anything from a horse: he'll respond to what's inside of you—or he won't respond at all. (p. 178) Brannaman's perspective is that feelings resonant to a deep level in humans and horses connections. Wilson (1984) and Brannaman (2001) suggested that sometimes human non-verbal languages convey much more information than we can articulate through languages. In EAP, horses create an atmosphere for clients to express their feelings through non-verbal language (e.g., hug a horse), which might be inappropriate between clients and practitioners because physical touch is a sensitive issue in therapy.

4.2 Mindfulness in EAP and in Biophilia Hypothesis

Participants shared the belief that horses interact in the present, and their feedback from present-moment interactions can raise clients' awareness. Because horses are in the present, they have the ability to stay with clients in the moment (Pugh, 2010). As horses respond to the present, they provide clients opportunities to explore how actions can create reactions from horses (Frame, 2006). To have a relationship with a horse, participants shared that clients have to be aware of the horses and themselves in the environment. This causes clients to enter a state of mindfulness when working with horses. Gilbert (2013) noted that horses function independently and unpredictably; therefore, clients do not have a script to follow. "This state of not knowing creates unique challenges with natural consequences" (Gilbert, 2013, p. 34). We interpret this to mean "the state of not knowing" creates a novel situation that causes clients to become alert so that they are aware of what is going on. Devon (2011) explored therapists' experiences of using EAP with adolescents who had been diagnosed with attention deficit hyperactivity disorder. The therapists stated that when clients ran around and spoke loudly, horses moved away from them. The interaction provided feedback to adolescents on how their behavior influenced horses' reactions. If they wanted to have a connection with horses, they had to change their behaviors. In Pugh's (2010) study, participants incorporated rescued and hypersensitive foals to work with adolescents, helping these adolescents learn to slow down and be quiet when they approached the foals. As a naturalist, Wilson described how he stays in the present when exploring out in a field. I formed the habit of quietude and concentration into which I still pass my mind during field excursions, having learned to summon the old emotions as part of the naturalist's technique. (1984, p. 90), and The naturalist is a civilized hunter. He goes alone into a field or woodland and closes his mind to everything but that time and place, so that life around him presses in on all the senses and small details grow in significant. (p. 103) When interacting with horses, horses create the awareness for clients of their behaviors, the horses' behaviors, and interactions in the moment. In some level, clients are as naturalists. Psychological mindedness (PM) is the awareness of psychological processes (e.g., feelings, thoughts, and behaviors) in self and others (Farber, 2005). Both mindfulness and PM involve self-awareness. The difference is that mindfulness is present-focused, and PM involves the capacities of synthesizing past and present experiences and searching for patterns. In other words, PM includes mindfulness and an extra interest in psychological conceptualization. Therefore, mindfulness is a necessary precondition, but not sufficient condition for PM (Farber, 2005).

4.3 Metaphor and Intuition in EAP and in Biophilia Hypothesis.

Participants shared that clients might find metaphors for their own situations in EAP. When clients identify a metaphor, it usually becomes an insightful moment for them. Lujan (2012) suggested that finding a metaphor is an "aha" moment as clients can often recognize a metaphorical relationship between their personal lives and their interactions with horses (Lujan, 2012; Trotter et al., 2008). Metaphors possess value when clients are able to interpret their own experiences in EAP. EAGALA (2012) suggested that two types of metaphors are used. The first are the nondirective metaphors, which are created by clients and prompted by therapists. They are generally based on analogies between clients' present interactions with horses and their real life situations. For example, some children might see a big and unpredictable horse as the grief that is large in their life (Gilbert, 2013). Then there are the directive metaphors, which are set up intentionally by therapists to match clients' needs. For instance, therapists might use food in a session and let the food distract horses from working with clients. When horses are "addicted" to food in EAP sessions, it may be an analogy to clients' addiction (Shultz, 2005). In this study, participants preferred to let clients create or discover metaphors. Participants might ask some questions to help clients find analogies and metaphors, but few participants use directive metaphors. Wilson (1984), discussing the importance of analogies, said: On one point both psychologists and successful voyagers agree. The key instrument of the creative imagination is analogy. …The innovator searches for comparisons that no one else has made…Important science is not just any similarity glimpsed for the first time. It offers analogies that map the gateways to unexplored terrain. The comparisons meet the criterion of principal metaphors used by art critics: one commanding image synthesized from several units, such that a single complex idea is attained not by *analysis* but by the *sudden perception* of an objective relationship (pp. 66-67).

According to Wilson, analogies lead innovators to find unexplored terrain and new knowledge. Analogies and metaphors are key instruments of the creative imagination. In EAP, metaphors help clients gain insights and know more about themselves, which they were unaware. When clients create or discover analogies or metaphors, this creativity can bring a different level of understanding about themselves. In EAP, horses' spontaneous behaviors create many opportunities for clients to find metaphors to understand unexplored terrains of their inner worlds. The "analysis" is operated by rational mind, and the "sudden perception" is operated by intuition from where insights come. According to Wilson's (1984) perspective, an important concept sometimes comes from sudden perceptions (intuition) instead of logical analysis. Wilson (1984) emphasized the importance of intuition in the process of finding analogies, which can lead innovators to unexplored areas. Hideki Yukawa (1991), a theoretical physicist and the first Japanese Nobelist, stated: Intuition has been a little-understood but powerful means of advancing science in quantum steps, yet somehow not considered legitimate. … Most scientists are uncomfortable with the use of such terms as creativity and intuition, and if they practice them, it is done in Marrano-like secrecy. (p. 384) According to Yukawa's (1991) perspective, science emphasizes rationality; therefore, most scientists are uncomfortable considering that intuition is legitimate. In *Biophilia* (1984), Wilson discussed Yukawa's concept to emphasize the importance of intuition in making analogies and metaphors in science. EAP emphasizes intuition as seen in these participants' experiences with their clients. When clients and practitioners follow their intuition, they find metaphors and insights, which are related to clients' situations. These metaphors and insights lead clients to a deeper level of self-exploration. When clients find metaphors or analogies in EAP, they mindfully interact with horses, and are in the state of high psychological mindedness (PM). Clients synthesize their outside experience and find analogies and patterns between their present relationships with horses and their life situations.

4.4 Relations of Non-Verbal Language, Mindfulness, and Metaphor

The concepts of non-verbal language, mindfulness, and metaphor are interconnected. Learning to read and respond to an animal's non-verbal cues helps people interpret humans' non-verbal language appropriately (Melson, 1990), which is related to the development of empathy. Empathy is an important component of PM as it is the awareness of psychological processes in self and others (Beitel, Ferrer, & Cecero, 2005; Hatcher, & Hatcher, 1997). Establishing a bond with horses in therapy encourages the development of empathy (Chardonnens, 2009; Dell et al., 2011; Frame, 2006; Trotter, 2006; Whitely, 2009). In this study, participants shared that clients develop empathy toward horses. Clients were concerned about how horses might feel if they did something to them (e.g., painting on a horse). Empathy and mindfulness are the important constituents of PM (Beitel, Ferrer, & Cecero, 2005; Farber, 2005; Hatcher, & Hatcher, 1997), and PM is inversely related to distress (Beitel, Ferrer, & Cecero, 2005).

In EAP, horses' inherent characteristics and non-verbal language create an atmosphere for clients to explore their psychological process in themselves and others (i.e., horses, therapist, and equine specialist), stay in the state of mindfulness, gain insights, and identify metaphors and analogies. These experiences are positively related to the development of PM. We propose this is the reason horses play important roles enhancing clients' mental health. Wilson (1984) suggested the knowledge that a naturalist gets from nature helps humans elevate their spirituality, understand their hearts, and put more value on non-human animals. The more humans come to understand other creatures; the more they value both other creatures and themselves. The concept from Wilson's biophilia hypothesis is similar to the concept of PM. When humans are in a state of high PM, they value and are aware of psychological processes in others and selves. Because developing empathy and staying mindful are the two components of high PM, which is negatively related to distress, future studies can explore relatedness of EAP interventions, clients' PM, and distress levels. Further, most of the participants described unexplainable experiences with horses in EAP. They observed horses reflect clients' inner world and described believing that horses specifically address clients' needs, but they do not understand what actually happens between horses and clients. Participants' experience relate to Erickson's (2011) exploration of intuition, telepathy, and interspecies communication. Erickson defined intuition as "knowing something without knowing how one knows." In other words, intuition is largely unconscious. From an evolutionarily adaptive process, nonhuman animals and humans seem to possess characteristics of intuition and telepathy.

The research of intuition, telepathy, and interspecies communication are considered by some as a parapsychology and pseudoscience. Most scientists are uncomfortable with these terms. Research can explore intuition and telepath from a psycho physiological basis to know more about human-animal interaction. For example, Dr. Barrett at the University of Saskatchewan in Canada finished a pilot study on telepathic animal communication and plans to build on that project to deeply understand it (The University of Saskatchewan, 2015). Perkins (2010) explored mirror neurons in horses and suggested these mechanisms might explain why horses reflect clients' inner world, and she suggested these mechanisms can help inform a possible theoretical framework for incorporating horses into therapy and understanding horses' roles in therapy. Cook (2012) defined the concept of mirror neuron is: The hard wiring in the brain that connects our nervous systems to this sensor motor relationship between inside-outside are the mirror neurons…Mirror neurons play out the external actions that we observe other people making as if we were doing them ourselves. Mirror neurons play out what we are imagining ourselves doing "as if" we are moving, without the need to actually carry out the movement. (p. 2) Cook's (2012) standpoint is based on evolutionary perspective, "Many of the aspects of awareness and other mental processes are based on biological requirements for survival, adaptation and the necessary level of responsiveness to the external environment" (p. 2). This concept is adoptable to humans and non-human animals (including horses) because from an evolutionary perspective all organisms look for survival to pass down their genes. Cook (2012) suggested: The primary survival interest of our body/being is in determining meaning… The most important aspect of meaning is the relationship between ourselves and the perceived environment. One way that a sense of meaning and relationship comes about is through the action of mirror neurons. Put in a simple way – these play out external scenes, noises, maybe even scents and tastes, as if they were happening internally. Mirror neurons take everything personally. (p. 2) Applying Cook's perspective, when horses interact with clients, horses perceive clients as a part of their external environment. Horses make meaning for the relationship between clients and themselves, and then horses' mirror neurons play out how and what horses perceive of clients. The psycho physiological concept of telepathy and neurophysiological concept of mirror neurons might actually being discussing the similar mechanism. There is a need for interdisciplinary studies exploring horses' roles in therapy.

Journal of Psychology and Behavioral Science, Vol. 3(1), June 2015

References

Abrams, B. N. (2013). Exploring therapists' conceptions of equine facilitated/assisted psychotherapy for combat veterans experiencing posttraumatic stress disorder. (Doctoral dissertation). Available from ProQuest Dissertation and Theses database. (UMI No. 3569187)

Baumeister, R. F., Dale, K., & Sommer, K. L. (1998). Freudian defense mechanisms and empirical findings in modern social psychology: Reaction formation, projection, displacement, undoing, isolation, sublimation, and denial. Journal of Personality, 66(6), 1081-1124.

Beitel, M., Ferrer, E., & Cecero, J. J. (2005). Psychological mindedness and awareness of self and others. Journal of Clinical Psychology, 61(6), 739-750. doi: 10.1002/jclp.20095

Brannaman, B. (2001). The faraway horses. Guilford, CT: Lyons Press.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77-101. doi: 10.1191/1478088706qp063oa

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. Journal of Personality and Social Psychology, 84(4), 822-848. doi: 10.1037/0022-3514.84.4.822

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(4), 319-332. doi: 10.1080/14779757.2009.9688496

Chase, S. E. (1995). Taking narrative seriously: Consequences for method and theory in interview studies. In R. Josselson & A. Lieblich (Eds.), Interpreting experience: The narrative study of lives (pp. 1-26). Thousand Oaks, CA: Sage.

Cook, A. (2012). Mirror Neurons and premotor cortex leakage. Retrieved March 15, 2014 from http://www.hummingbird-one.co.uk/pdf/MirrorNeurons.pdf

Davis, M.H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. Journal of Personality and Social Psychology, 44(1), 113-126.

Dell, C. A., Chalmers, D., Bresette, N., Swain, S., Rankin, D., & Hopkins, C. (2011). A healing space: The experiences of First Nations and Inuit youth with equine-assisted learning (EAL). Child Youth Care Forum, 40(4), 319-336. doi: 10.1007/s10566-011-9140-z

Devon, J. M. (2011). The therapist's description of the experience of equine assisted psychotherapy (EAP) as it pertains to youth with attention deficit disorder/attention deficit hyperactivity disorder: A qualitative study (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3489636)

Equine Assisted Growth and Learning Association (2009). Foundamentals of EAGALA model practice untraining manual (6th ed.). Santaquin, UT: EAGALA.

Equine Assisted Growth and Learning Association (2012). Fundamental of EAGALA model practice untraining manual (7th ed.). Santaquin, UT: EAGALA.

Equine Assisted Growth and Learning Association (2013). EAGALA around the World. Retrieved December 31, 2013 from http://www.eagala.org/Global

Erickson, D. L. (2011). Intuition, telepathy, and interspecies communication: A multidisciplinary perspective. NeuroQuantology, 9(1), 145-152

Esbjörn, R. J. (2006). When horses heal: A qualitative inquiry into equine facilitated psychotherapy (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3213087)

Farber, B. A. (1985). The genesis, development, and implications of psychological mindedness in psychotherapists. Psychotherapy Theory Research & Practice, 22(2), 170-177. doi: 10.1037/h0085490

Frame, D. L. (2006). Practices of therapists using equine facilitated/ assisted psychotherapy in the treatment of adolescents diagnosed with depression: A qualitative study (Doctoral dissertation). Available from ProQuest Dissertations and Theses database (UMI No. 3204151)

Gilbert, R. (2013). Equine assisted psychotherapy: Provides perspectives and beliefs (Doctoral dissertation). Available from ProQuest Dissertation and Theses database (UMI No. 3599176)

Guba, E. G. (1996). What happened to me on the road to Damascus. In L. Heshusius & K. Ballard (Eds.), From positivism to interpretivism and beyond: Tales of transformation in education and social research (pp. 43-49). New York, NY: Teachers College Press.

Hatcher, R. L., & Hatcher, S. L. (1997). Assessing the psychological mindedness of children and adolescents. In M. McCallum & W. E. Piper (Eds.), Psychological mindedness: A contemporary understanding (pp. 105-131). Mahwah, NJ: Erlbaum.

Josselson, R., & Lieblich, A. (2003). A framework for narrative research proposals in psychology. In R. Josselson, A. Lieblich, & D. P. McAdams (Eds.), Up close and personal: The teaching and learning of narrative research (pp. 259-274). Washington, DC: American Psychological Association.

Lee, P., Dakin, E., & McLure, M. (2015). Narrative synthesis of equine-assisted psychotherapy literature: Current knowledge and future research directions. Health and Social Care in the Community. DOI: 10.1111/hsc.12201

Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2011). Paradigmatic controversies, contradictions, and emerging confluences, revisited. In N. K. Denzin & Y. S. Lincoln (4th ed.), The SAGE handbook of qualitative research (pp. 97-128). Thousand Oaks, CA: Sage Publications.

Lopez, J. J. (2006). Mapping metaphors and analogies. The American Journal of Bioethics, 6(6), 61-63. DOI: 10.1080/15265160600939037

Lujan, K. (2012). The challenges and discoveries in using equine assisted psychotherapy approaches by counseling practitioners in the southwest (Doctoral dissertation). Available from ProQuest Dissertation and Theses database (UMI No. 3527225)

Mandrell, P. J. (2006). Introduction to equine-assisted psychotherapy: A comprehensive overview. Longwood, FL: Xulon Press.

Melson, G. F. (1990). Fostering inter-connectedness with animals and nature: The developmental benefits for children. Retrieved January 4, 2015 from http://www.petpartners.org/Document.Doc?id=26

Melson, G. F. (2000). Companion animals and the development of children: Implications of the biophilia hypothesis. In A. H. Fine (Ed.), Handbook on animal-assisted therapy (pp. 375-383). San Diego, CA: Academic Press.

Perkins, A. (2010, August). Carving out a new role for equine companions: A theory for efficacy of equine supported theory. In Martin-Rosset, Flanagan and Kjaldman, Horse network workshop: Role of equids in socio economy and on human well being. Symposium conducted at the meeting of the European Federation of Animal Science, Heraklion, Greece.

Professional Association of Therapeutic Horsemanship International. (2012). Equine-facilitated learning manual 2012: How to start an EFL program. Denver, CO: PATH International.

Pugh, S. S. (2010). Healing each other: A qualitative study of therapist perspectives at an equine-assisted psychotherapy program in Boulder, Colorado: A project based upon an independent investigation (Master's thesis). Retrieved from http://dspace.nitle.org/handle/10090/17281

Rodwell, M. K. (1998). Social work constructivist research. New York, NY: Garland Publishing.

Samuels, A., Shorter, B., & Plaut, F. (1986). A Critical Dictionary of Jungian Analysis. East Sussex, NY: Routledge.

Shultz, B. N. (2005). The effects of equine-assisted psychotherapy on the psychosocial functioning of at-risk adolescent ages 12-18 (Unpublished Master's thesis). Denver Seminary, Denver, CO.

The University of Saskatchewan (2015). M. J. Barrett. Retrieved January 18, 2015 from http://homepage.usask.ca/~mjb692/index.php

Trotter, K. S. (2006). The efficacy of equine assisted group counseling with at-risk children and adolescents (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3254229)

Trotter, K. S. (2012). Harnessing the power of equine assisted counseling: Add animal assisted therapy to your practice. New York, NY: Routledge.

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 of Mental Health, 3(3), 254-284.

Whitely, R. (2009). Therapeutic benefits of equine assisted psychotherapy for at-risk adolescent (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3405795)

Wilson, E. O. (1984). Biophilia. Cambridge, MA: Harvard University.

Yalom, I. D. (1995). The theory and practice of group psychotherapy (4th.ed.). New York, NY: Basic Books.

Yukawa, H. (1991). Creativity and intuition: A physicist looks at East and West. Disordered Material: Science and Technology, 384-385. DOI: 10.1007/978-1-4684-8745-9_67