

Adding Equine-Assisted Psychotherapy to Conventional Treatments: A Pilot Study Exploring Ways to Increase Adult Female Self-Efficacy among Victims of Interpersonal Violence

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Abstract

This mixed-methods exploratory pilot study examined the impact of equine-assisted psychotherapy (EAP) on self-efficacy of 13 adult female victims of interpersonal violence (IV). For eight weeks, the experimental group added weekly two-hour EAP sessions to existing treatments. The comparison group received regular group therapy. Both groups received the same curriculum, the difference between groups the addition of EAP to the treatment already in progress. Clinical measures included the *General Self-Efficacy Scale*, *Beck's Depression Inventory*, *Burns' Anxiety Scale*, and the *Global Assessment of Functioning Scale*. After SPSS analysis, quantitative results found the EAP group with greater improvement across self-efficacy, depression, and general functioning. Phenomenological themes in the qualitative journals added insight and clearly articulated some mechanisms underlying benefits conveyed from the addition of EAP to conventional treatments. This pilot study contributes to the growing evidence base for the use of equines in behavioral health treatment with adult female victims of IV.

Introduction

I like being in the arena with the horses. This is so different from my regular life. I wonder what they think. Do they like when people come and pet them? Are some in a bad mood and don't want us to walk by them? What do we look like to them? Are we sort of color-coded by our anxiety or whatever emotion we have? Seems they aren't complicated in their minds – like me. – EAP Study Participant

Since 1999, an evidence-base for equine-assisted activities and therapies (EAAT) has been developing that focuses on the use of equines for a variety of human health and behavioral health conditions (Equine Assisted Growth and Learning Association, [EAGALA], 2013; Professional Association of Therapeutic Horsemanship, International [PATH Intl.], 2013). An international database containing results of over several hundred research studies on equine-assisted activities (EAA) continues to expand, and a growth in international media reflects the scientific exploration of a growing number of behavioral and social scientists that are asking, “Why horses? What is it about horses, and why do they have such an impact in treatment?” (Rothman, 2013; Whittlesey-Jerome, 2013). To answer these questions, a small but vital group of non-profit organizations across the country is funding research into the efficacy of therapeutic interventions that involve equines; one example is the Horses and Humans Research Foundation of Chagrin, Ohio (Horses and Humans Research Foundation [HHRF], 2013).

Several well-established fields of equine treatment use the riding of horses as part of the intervention – therapeutic riding, interactive vaulting (PATH Intl., 2013), and hippotherapy (American Hippotherapy Association [AHA], 2013). Equine-assisted learning (EAL) addresses learning goals whereas equine-assisted psychotherapy (EAP) addresses treatment goals. The focus of our pilot study is EAGALA's EAP model – an experiential, solution-focused approach to behavioral health treatment that takes place with equines *on-the-ground* with EAGALA-certified professionals facilitating the experience in a treatment team/dyad (EAGALA, 2012).

Equine-Assisted Psychotherapy

Researchers and practitioners have spent the last 15 years studying EAP's therapeutic impact on a variety of populations including children, adolescents, adults, and older adults. Importantly, all EAP activities take place under the watchful oversight of a team of EAGALA-certified professionals. This team is comprised of a master's level licensed behavioral health/clinical therapist (MH) and an equine specialist (ES) – an individual who understands equine behaviors. The ES acts partly as a safety valve for the therapeutic setting (EAGALA, 2013) by carefully observing and interpreting equine behaviors during each session.

EAP is *experiential* in nature and focuses on shared experience and meaning applied to real world problems. EAP is embedded in an eco-therapeutic, action-oriented setting (EAGALA, 2013). In EAP practice, the focus of the work is not riding or horsemanship but rather the developing *relationship* between the human and the horse as more-or-less equals on the ground. In the arena and in the presence of horses, therapists have witnessed important shifts in human behavior and thinking. By negotiating a relationship built on trust, in addition to developing the participant's problem-solving and interpersonal skills, therapeutic inroads can be made – and, in some cases, made rather swiftly and with encouraging results (EAGALA, 2013).

To provide a foundation for this work, a recently growing body of evidence concerning the effectiveness of EAAT programs across the human lifespan was reviewed. Results of these studies of EAAT are suggestive though not overwhelming, as there appear to be a similar number of studies reporting no differences as there are with significant findings. However, when there are significant differences between groups, those differences tend to favor EAP and related approaches. In such cases, small sample sizes may be compromising the overall research effort.

Regarding the EAP literature, Porter-Wenzlaff (2007) found, for women who survive trauma, participating in EAP can impact their capacity to confront fears, and strengthen boundaries, self-confidence, and empowerment. In the area of women and addictions, Pollack (2009) found that EAP had an influence, though not significant. The EAP group increased in the readiness to change score while the comparison group decreased. Both groups reported a decrease in perceived level of difficulties in relationships to self and others, depression, anxiety, daily living, functioning in a role, addictive, impulsive behavior, and psychosis.

Similarly, Shambo (2006) found, for adult women with PTSD, significant improvement in depression, dissociation, and life-functioning, based on self-report. The participants had been experiencing moderate to severe levels of depression prior to EFP. Post-test scores placed them in mild depression, and at 4-month follow up they were in normal, non-depressed levels. A

statistically significant decrease in depression was found pre- to post and post to follow-up, but not for dissociative experiences. Meinersmann, Bradberry, and Roberts (2008) found, for adult female survivors of abuse in a qualitative study, that the stories of five women indicated anecdotally that EFP was effective. In a paper presented in 2006, Bradberry, Roberts, and Meinersmann found, through review of taped interviews with seven women who had a shared history of abuse, that EFP was an effective intervention.

Regarding EAAT with adult female victims of abuse, Klontz, Bivens, Leinart and Klontz (2007) found, among adults in a residential program, equine-assisted experiential therapy (EAET) positively impacted guilt and resentment, regret and future fears, and enhanced independence and self-reliance. Though a convenience sample with no comparison group, the authors show a statistically significant decrease from pre-post on diminished general symptom severity ($p < .05$) with no significance from post to follow-up, and an increase in enhanced psychological well-being from pre-post ($p < .05$) with no significant change from post to follow-up.

Cantin and Marshall-Lucette (2011) reviewed five quantitative EAAT research articles and found that EAAT strengthens positive behaviors while reducing negative behaviors in people with mental illness. Whereas, Lentini and Knox (2009) conducted a systematic review of 16 qualitative and quantitative articles. They discovered that most participants in these studies had emotional or behavioral problems issuing from abuse and trauma that resulted in behavioral diagnoses. Although the conclusions drawn were varied, most authors indicated EAAT was beneficial for participants who, after EAAT, measured decreases in anger, depression, aggressive behavior, and dissociation. Participants also measured increases in self-confidence, self-esteem, locus of control, and overall functioning (Lentini & Knox, 2009). The authors reinforce the idea of promise in the findings of a number of these studies, in particular the influence of qualitative results (Lentini & Knox, 2009).

As with any developing therapeutic field, the literature on practice outweighs that on theory or research. In fact, today's EAAT professionals are either willing to try something new – or they are waiting for more evidence to surface. Either way, as the evidence base for EAAT's efficacy with any particular behavioral or social problem emerges, Lentini and Knox (2009) suggest researchers develop and conduct larger, more comprehensive studies – studies that are controlled and standardized, and preferably longitudinal in design. They also suggest that researchers better define the EAAT language and its terms, the intervention methodology, and the theories that guide the practice; in addition, they recommend standardized language, and they also suggest that any population under study be homogeneous and well-defined. For example, mental health professionals use different words and acronyms to signify equine use in psychotherapy – whether EAP, EAC, EFT, EFP, EAA, EAAT, or EAET, the major emphasis is on the use of equines in psychotherapeutic treatment. Finally, efforts to use reliable and valid measures for treatment outcomes should be strengthened (Lentini & Knox, 2009).

Whereas early equine research focused on physical and mental issues of persons needing special education, language-learning, occupational and recreational therapy, medical treatments, and in-prison rehabilitation, the choice was made to broaden the focus of this study to a

population under-served in treatment – minority populations living in poverty. In many of these cases, these same people are people of color who are also under-represented in the scientific literature (Selby & Smith-Osborne, 2013).

This pilot study examined the impact of EAP on a psychological indicator of adjustment and well-being – self-efficacy – in adult female victims of interpersonal violence (IV). EAGALA's model of equine psychotherapy and its impact on adult females living in poverty who were victims of IV was the focus. Study participants were marginalized women living in abusive relationships who were currently receiving domestic violence resources and services that included case management and group therapy from a small non-profit organization located in the downtown area of a medium-sized metropolitan community in the southwest.

Adult Female Victims of Interpersonal Violence and Self-Efficacy

Today, IV exists in many shapes and sizes including child maltreatment, domestic violence, gang activities, gun violence (random and non-random), intimate partner violence (IPV), older adult maltreatment, sexual assault, and others. IV is a serious, multi-dimensional problem, and current IV research shares the same overarching goal – to decrease violence in society (Kazdin, 2010).

Researchers acknowledge that different kinds of victimization often co-exist or overlap in IV (Rolling & Brosi, 2010), and that social and cultural influences on the relationship between victim and perpetrator should be taken into account by the therapist working with victims of IV (Bryant-Davis, 2010; Kazdin, 2011). Traumatologists know that culture impacts both the IV experience and how one recovers afterwards, and marginalized women are particularly vulnerable. Studies should take cultural context into consideration, understanding that IV is a challenge to treat effectively without an integrated, culturally-informed approach (Bryant-Davis, 2010; Rolling & Brosi, 2010).

Self-efficacy is the extent to which one believes one can manage, and has control over, what happens in his or her life. This sense of command and control is critical to self-image and self-esteem (Benight & Bandura, 2004). IV victims with low self-efficacy also report increased symptoms of PTSD and depression (Lambert, Benight, Wong, & Johnson, 2013). In addition, various forms of self-efficacy have been shown to protect mental health in women victims of IV, including relationship self-efficacy and coping self-efficacy. (Lambert et al., 2013; Sullivan, McPartland, Price, Cruza-Guet, & Swan, 2013). Recent research supports that the negative psychological consequences of IV can influence whether or not a victim makes the decision to terminate a violent relationship. On the other hand, increased self-efficacy can positively influence this decision, with commitment to one's relationship strongly influenced by self-efficacy (Rhatigan, Shorey & Nathanson, 2011).

The overall purpose of the pilot study was to further develop an evidence-base for the use of EAP for behavioral health treatment with marginalized populations. The pilot study population was living in poverty, crisis, and fear. Women sharing these characteristics are often under-represented and under-served in mainstream behavioral health treatment. The researchers

were therefore interested in the impact EAP could have on the self-efficacy among marginalized adult female victims of interpersonal violence.

This study included a comparison group that received a generally-accepted, established treatment as recommended by their human service agency. Participants included Hispanic and non-Hispanic women of different ages, and was conducted in a culturally diverse, semirural community in the southwestern United States. This eight-week study received approval by the IRB of the researchers' university; however, the Animal Impact Council (AIC) found the impact would be negligible for the horses, so a research proposal was not required by that regulatory body.

Method

Participants

The convenience sample was recruited by the agency therapists in consultation with the clinical director. The sample consisted originally of 14 adult women between the ages of 28 and 64 ($M = 43.75$ years). Over the course of eight weeks, two groups of seven women were to participate in on-going individual and group therapy with their agency. The seven women in the comparison group (COM) did not receive EAP, whereas six women (one dropped out early in the study) in the EAP group added a weekly two-hour EAP session to their existing agency services, for a total of 13 women in all. Both groups were similar on demographic data. Adult female participants were assigned to one of two groups – the EAP or the COM group. All women receiving services from this organization were in abusive relationships. They were receiving case management and group therapy on a regular basis. Importantly, women were assigned to the EAP group that had access to vehicles, whereas those women who did not continued in their regular on-site agency group as the COM. The women participating in the EAP group received gas cards to help pay for their gasoline to and from the stables. This would be the main difference between the groups and within the sample in general.

Table 1: *Participant Characteristics*

EAP Group	CHARACTERISTICS	COM Group
7	TOTAL	6
47.0 years	AGE	40.5 years
GENDER		
7 (100%)	Female	6 (100%)
ETHNICITY		
3 (43%)	Hispanic	3 (50%)
4 (57%)	Non-Hispanic	3 (50%)
TIME IN SERVICES		
34.4 weeks	Weeks	14.4 weeks

Measurement

The *General Self-Efficacy Scale* (GESS) is a psychometric scale of 10 items that assess optimistic beliefs about the self-necessary to cope with life's difficulties (Jerusalem & Schwarzer, 1995). The German version of the GESS was developed in 1979 by Jerusalem and Schwarzer, and later revised and adapted to 26 other languages. The GESS has been used successfully internationally for two decades. Initial correlations were calculated on a sample of East German migrants in 1989 and 1991 – 528 males and 380 females in the first wave, and 122 males and 102 females in the second wave. The GESS has shown moderate to moderately strong internal consistency of .76 to .90 indicating good reliability, with the majority in the high .80s. Concurrent and predictive validity were indicated by correlations derived from a sample of 180 university students where all correlations were highly significant (Schwarzer, 2011). In addition, existing agency data on depression (*Beck's Depression Inventory* - BDI), anxiety (*Burn's Anxiety Scale* - BAS), and global assessment of functioning (*Global Assessment of Functioning* - GAS) were already being collected by the human service agency.

All women participating in both the EAP group and the COM group were given journals at the beginning of the study. They were asked to write about their thoughts and feelings throughout the study. No other directions were given. All gave permission for their words to be used by the researchers after the study was completed. No identifying information would be shared. The researchers were hopeful that this qualitative data would add depth and breadth to the findings.

Procedures

The specific aim of the quantitative component of the study was to determine whether the addition of a two-month equine-assisted psychotherapy (EAP) program to traditional treatment could decrease depression and anxiety symptoms and increase global functioning and self-efficacy among a sample of adult female victims of interpersonal violence compared to those receiving traditional treatment (COM). The corresponding hypothesis was that participation in an additional two-month EAP program will decrease depression and anxiety symptoms and increase global functioning and self-efficacy among a sample of adult female victims of interpersonal violence compared to those receiving traditional treatment (COM).

The specific aim of the qualitative component of the study was to explore the nature of the experience itself through the journal data. The researchers used an emergent strategy – developing themes from the data – as a preliminary process upon which future research could naturally follow using NVivo 10 software.

The quantitative measures included the GESS as the pre- and post-test instrument, and scale constructs were embedded in the groups' curricula. Each group was administered the pre-test just prior to the first session, and the post-test immediately after the last session. Existing agency data on depression (BDI), anxiety (BAS), and global assessment of functioning (GAS) were also collected and analyzed in addition to the GESS data. The Statistical Packages for the Social Sciences (SPSS) was used for analysis of the quantitative data, as was GPower 3.1 for determining post-hoc effect size.

The pilot study was planned to last eight weeks, with groups meeting weekly, each for a two-hour session. The study continued for eight weeks in length, with no mitigating factors presenting. The MH and ES crafted curricula to address the constructs embedded in the data collection instrument. Both groups used the same curriculum throughout the study.

An observer was available who took notes from a distance, outside of the arena. Her data was useful as a control throughout the study, and provides support for the qualitative results from the women's journals and the after-thoughts penned by the MH and ES. In addition, all women participating in the study (both the EAP and COM groups) were given new notebooks at the beginning of the study. They were asked to write about their thoughts and feelings throughout the study. The women in the EAP group were able to journal at the end of each EAP session, which served to add depth and breadth to the results. All gave permission for their words to be used by the researchers after the study was completed. No identifying information would be shared. The researchers were hopeful that this qualitative data would add richness to the findings.

The EAP group used the EAGALA model of EAP. Each session was co-facilitated by a MH who was, in this study, a Licensed Professional Counselor, or LPC credentialed by EAGALA, in partnership with an ES, also credentialed by EAGALA. All of the horses belonged to the ES and she was an expert in understanding and interpreting their behaviors.

The curriculum topics covered were: safety; boundaries – how to use the body to enforce a boundary, how to protect other people's boundaries (namely children), and how to know when a boundary has been violated; connection and communication – with the self, with the horses, and with others; self-care, body and self-awareness, self-image, and self-esteem; giving and receiving support, and working in a group instead of being isolated; confidence, finding interpersonal strengths, and competence; taking action instead of being passive, becoming assertive; and being aware of challenges while finding freedom to express emotions. Sessions were focused on empowerment and possibility.

At the beginning of the first session, participants in the EAP and COM groups completed the pre-test. The COM group had well-established Group Rules and a process for sharing and discovery that, over the course of eight weeks, covered the curriculum. This group took place in a natural setting with horses and props such as halters, lead ropes, grooming supplies, poly-vinyl chloride pipes of differing lengths, traffic cones, – and anything else that might be used safely with horses in the arena.

As mentioned earlier, all horses used in this study belonged to the ES, who knew them well. Each was trained especially for the psychotherapeutic work and deemed safe. The same curriculum was followed, though the options for activities increased as a result of the outdoor arena setting. Importantly, a safety plan was in place that covered physical as well as mental or behavioral health circumstances at the barn. The women were on their own in their travels to and from the stables, as each had a vehicle for transportation.

As stated earlier, throughout the study, the women in both groups kept journals. At the end of the last session, participants in both groups completed the post-test in their respective environments, and then celebrated their success with a pizza party on-site that was just for them. Each was given feedback from the professionals and a *Certificate of Flourishing* as well as an opportunity to talk about her experience during the study. Qualitative data were gathered within the social setting of the facility and arena for the EAP group and the agency conference room for the COM group. All the women recruited for the study understood that the information they chose to write in their journals could be used in the final manuscript, and no identifying information would be included. All chose to participate fully.

Qualitative data were written down by the participants immediately after EAP group during a debriefing and journaling session. The context in which the qualitative data were produced was consistent throughout the study – immediately after EAP group sitting in a circle under a barn awning, and during the week when at home and alone. Curious about the effects EAP or COM might have on the women’s self-efficacy, depression, anxiety, and general functioning, the researchers sought to collect the women’s thoughts and feelings about their experience during the study.

The women in the study described their lived experiences in their journals. The researchers were hopeful that the opportunity to sit and write about the previous EAP session would provide these women with time to reflect on what they did, what they thought, and how they felt. The journal was to be a tool for focused self-reflection that would highlight the women’s struggles and accomplishments during treatment. Because the study was embedded in two very different, but caring and supportive environments – the agency and the facility, the women felt comfortable expressing their own curiosity about, and participating in, the study.

The female EAP session observer was a graduate social work student who sat outside of the arena under a shade tree on a bench and took detailed notes. She added her insight to the women’s data in an overall vision of the women’s experiences. In addition, there were opportunities for the MH and ES to share their observations and insight with the researchers, and several very interesting stories are presented. Upon completion of the data analysis, the journals were returned to the agency’s clinical director for distribution back to the women.

Phenomenological research attempts to understand a person’s lived experience based on his or her own story (Waters, 2014). The participants’ journals added qualitative data to the analysis, which required thoughtful definition, description, and then categorizing into themes (Drisko, 2005). Because of the brief, time-limited nature of this study’s qualitative data collection, there was no data saturation point; our data collection was terminated prior to reaching any such point. For the purposes of analysis, to decrease arbitrariness and increase repeatability, an analytical unit was as small as possible – a word or phrase. Within each weekly group session with its handful of separate group tasks, the identified unit of analysis would be a word or phrase included in the participant’s journal entry for that week.

The rule of interpretation was to investigate for themes and evidence of concepts embedded in the GSES, BDI, BAS, and GAF. These concepts would need to be written as

thoughts or feelings in the journals, or shared verbally with the EAGALA-certified professionals upon completion of the group during debriefing. The rule of decision was to include anything written in the participants' journals that reflected feelings or thoughts embedded in the scales – self-efficacy, depression, anxiety, and functioning. The COM group's journals would be reviewed in the same manner, looking for the same units for analysis. As mentioned earlier, EAGALA professionals were on-site in the facility and arena during EAP groups, and the COM facilitators were on-site in the conference room of the agency for that group.

Results

Quantitative Results

A series of 2 X 2, Group (EAP vs. COM) by Time (pretest vs. posttest), mixed factorial ANOVAs examined the study hypothesis that participants in the EAP group would show greater improvement than participants in the COM group. Dependent measures included General Self-Efficacy, Depression, Anxiety, and General Functioning (see above). Given the small sample size and exploratory nature of this study, alpha was again set at .15 to avoid type II errors and as suggested by Hosmer & Lemeshow (2005). As above, support for the hypothesis would be shown by a significant Group by Time interaction with simple effects tests showing that the EAP group improved whereas the COM group showed no change.

For General Self-Efficacy, the only significant effect to emerge as a main effect for Time, $F(1,11) = 15.09, p = .003, \eta^2 = .007$. This effect suggested that both groups showed similar increases in self-efficacy from pretest to posttest, though the proportion of the variance was small. Neither the Group main effect nor the Group by Time interaction was significant (both $p > .15$). For Depression, a similar pattern emerged with the main effect for Time being significant, $F(1,11) = 6.49, p = .027, \eta^2 = .002$, but neither the group by time interaction nor the group main effect was significant (both $p > .30$). Again, the proportion of the variance was small. Complimentary to the effect for self-efficacy, both groups showed declines in depression from pretest to posttest.

Anxiety also showed a similar pattern with the only significant effect emerging was a main effect for Time, $F(1,11) = 7.01, p = .023, \eta^2 = .114$. Like the effect for depression, both groups showed declines in anxiety from pretest to posttest. Again, neither the group main effect nor the group by time interaction was significant (both $p > .25$) and the proportion of the variance was small. Finally, the pattern for General functioning was the same as the other variables with a significant effect for time emerging, $F(1,11) = 4.91, p = .049, \eta^2 = .100$, and neither the main effect for Group nor the Group by Time interaction reaching significance (both $p > .29$). In this relationship, the proportion of the variance was again small.

Table 2. *Pre and Posttest Means for General Self-Efficacy, Depression, Anxiety, and General Functioning*

EAP Group	Compare Means	COM Group
	General Self-Efficacy	
62.43	Pre-test	56.33
68.57	Post-test	61.67
	Depression	
12.29	Pre-test	17.17
7.29	Post-test	12.67
	Anxiety	
32.29	Pre-test	40.17
25.00	Post-test	21.00
	General Functioning	
64.43	Pre-test	64.67
69.43	Post-test	66.33

Table 3. *General Linear Model on Difscores between Groups on General Self-Efficacy, Depression, Anxiety, and General Functioning, Including Effect Size*

General Linear Model
GSES Difscore $F(1,11) = 15.09, p = .003, \eta^2 = .007$
BDI Difscore $F(1,11) = 6.59, p = .027, \eta^2 = .002$
BAS Difscore $F(1,11) = 7.01, p = .023, \eta^2 = .114$
GAF Difscore $F(1,11) = 4.91, p = .049, \eta^2 = .100$

For both groups, statistically at least, the changes were in the same direction and at relatively the same magnitude. Similar to self-efficacy, both group showed significant increases in general functioning from pretest to posttest. The difference in anxiety scores was accounted for by one COM participant adding anti-anxiety medication to her treatment plan during the study. Importantly, several women from the EAP group were making big life-changes (leaving

their perpetrators) upon completion of the intervention, which may have been reflected in their anxiety levels at post-test.

Although there is no agreed standard for interpreting effect size (ES) and the process of analysis remains subjective, small ES can be important when studying variables which are known to be either hard to change or valuable, as in life-saving. In the treatment of IV victims suffering from trauma, seeing even small behavior change may be of practical significance, and may make the difference between a client's life and death.

Qualitative Results

Qualitative data from the study added insight into some of the mechanisms underlying the benefits conveyed from the addition of EAP to conventional treatments. A number of themes emerged in the analysis of the phenomenological data from the EAP women's journals and the observation notes: *perception, boundaries, assertiveness, letting go, just being, comfort in the now, horses, relationship, strong, change, crying, power, angry, peace, listening, tired, f***ing, frustrated, and sad*. These words appeared in a number of lengthy arena-based scenarios that reflected tasks, some successfully completed, and some not so, during group experiences. Several themes emerged in the analysis of the phenomenological data from the COM women's journals: *children, legal issues, relationships, coping, law, overwhelm, angry, confrontation, and power*. The COM journals were mostly commentary on how each was doing in her life in general, and what was going on in her agency treatment. The COM women wrote very little in their journals, so they made few contributions to the study data overall.

The qualitative data contained powerful personal stories from the EAP participants. What the EAP participants wrote about became meaningful examples that captured the phenomena experienced in the arena with the horses. The COM participants chose to focus more on what was happening in their interpersonal relationships – challenges with spouses, other family members, including children, and/or other friends. Very few entries in the COM participants' journals dealt with thoughts or feelings during the study. For both groups, stories were always first person – written from the woman's point of view.

The phenomenological data from the EAP group participants' journals, however, really seemed to capture the essence of their experiences. The presentation of the data was honest, accurate, clear, and as complete as possible. In reflection, asking the women to journal immediately after their group experience produced vivid themes and consistently rich detail. Additionally, the notes from the observer and the observations made by the MH and ES complemented the journal data. Upon conclusion of the study, the observer summarized her observations of the women in the EAP sessions. She identified three messages received and reflected by the women during EAP treatment: "*You are strong... You can do this... You can change.*"

The COM group was an open, on-going women's group at the agency. The women in that group participated as a regular part of their treatment and services. For most, the regularly scheduled group gave them opportunities to discuss issues facing them in their daily lives as they negotiated challenging interpersonal relationships. The same issues confronted the women who

participated in the EAP group. However, their journal entries shed little if any light on their situations or their progress in group during the eight weeks of study, as there was no directed time for journaling as part of that group's process.

Of clinical importance was the finding in the qualitative data which suggested the horses eventually became transitional objects of comfort to the women. The observer noted that the women in the EAP group became interested in *how the horses saw them*. Having to create physical boundaries between themselves and the horses was a natural consequence of the work, and this became important when the women did not want to force the horses do things they appeared to not want to do. Yet, when the women were asked to try again with more assertiveness, the horses responded favorably – which provided positive feedback.

The following are some excerpts from the qualitative data. After the first session, one woman wrote in her journal, “This is my first group experience and especially for today I am seeing how important it is to have friends to balance you and support you. To make you see you're not so different from the world.” Near the end of the study, another woman wrote down these thoughts:

I'm sad we only have one more session with these beautiful horses. They're incredible and you can feel the emotional attachment with them and it's like you can hear their heartbeat with yours and almost like they're telling you, 'It's okay – tell me – I can handle it.' This was so moving for me – like wow – this animal doesn't know me but is letting me in their world and it's okay to share – so amazing – so scary – to just let go and be that open.

Throughout the study, the women were encouraged to write in their journals – both immediately after each session and throughout the week between sessions. This journal entry came from a woman who had never really cried about her abusive relationship. In her words, she gives a reader a glimpse into her thoughts and feelings:

Today I got to pick my horse. I chose the red one because she was hanging around as if saying 'I'm here – pick me' and I felt like she needed attention. Grooming her I felt a sense of happiness and calming relief. I told her about [the abuser]. I felt like crying. Brushing her tail, she seemed happy. Why can't I be happy... and well I guess not today – it's just not my time yet. Yuck, why do I feel like crying? Aghh... this sucks having feelings – my heart feels like someone stomped on it then put it back. Aghh... I can't stop crying. Wow – I feel like a river wants to run out of my eyes. Wow – this sucks. I'm telling a horse my feelings and I want to just cry a lot. I feel so much pain and I don't know how to stop it. Focus. The horse is looking at me like 'Hello – I'm here for you. Stop worrying. You can tell me. I'll listen while you cry.' Wow – it's so emotional... this huge horse is letting me tell my feelings, and she just has so much compassion for me – that's so weird.

At some point during the study, sensing a space between the two worlds – the world of abuse and the world of the horse – a woman wrote:

This is a two-hour island in my week where I am transported to a place where I feel safe... a place that I haven't experienced before. These other women in the group – we are girls who put other people ahead of ourselves and we wonder if

we are ok? Are we nice? I am SO surprised at my level of grief. It feels enormous and I had no idea I harbored so much. It feels almost that I am consumed with it.

Yet another woman, at the end of particularly grueling session wrote:

Yea – she’s moving again, okay – just keep swimming. Just keep swimming – yeah – that works. For the moment. Great. Well, we made it to the fence. Yeah – good job girl you did it. One hurdle down, one million to go, but she made it. Wow that was definitely hard work. Okay I get to actually cry on my way home. I finished the test – barely – but got through it.

One woman wrote in her journal after the fourth session:

Today I felt all alone in the arena with my horse. Like I was stuck in a nightmare where you are screaming for help but nothing comes out. But I knew I had to go in. Then, I got angry at myself. Where have I gone? What happened to my courage? My self-esteem? How did I let someone take my self-worth, my voice, my value away?

According to the observer, the women *as a group* noticed that, “It looked like one in our group who was having a particularly bad day/week was especially noticed by the horses. They followed her and loved on her as though they knew she was in so much pain. It was amazing to see.” Finally, nearing the end of the study, a woman wrote, “Okay – wow – all of this journaling has led me to the revelation – well no wonder it’s so f---ing difficult to sweep my floors and do my chores – I am shifting my entire being!”

Although the journaling activity was originally considered secondary to the arena work, it may have had an important influence on the treatment outcomes for the women. During EAP journaling time, they were prompted to reflect upon their arena experience – which may have presented a timely opportunity for catharsis in the act of bringing the entire session together for closure. In juxtaposition, a lack of depth in the journals of the control group women was in stark contrast. Though the COM women were also prompted by their therapists to write in their journals throughout the study, their entries tended to focus on what they were doing each day – tasks – not on what they were thinking or how they were feeling.

Discussion

Both the EAP and COM group improved on depression, anxiety, global assessment of functioning, and general self-efficacy. Study results showed greater improvement across all measures for the EAP group, though the effect size was small on all variables. On the anxiety scale, scores were possibly influenced by one COM participant adding anti-anxiety medication to her treatment plan during the study. Also, and importantly, several women from the EAP group were beginning to make significant life-changes (leaving their abusers) upon completion of the intervention, which may have been reflected in their anxiety levels at post-test. The fact that one woman was able to tell her ex-husband she would not speak to him when he was angry and proceeded to address the issues their child needed and set firm boundaries with him inspired the other women. She said she never thought she would be able to stand up for herself in the way she did. This cycle repeated many times during the group; each week was a new struggle for one of the participants and also a new celebration for another participant. The

participants all began to strategize problems with each other, support difficult situations and celebrate successes as they were discussed each week.

Upon the conclusion of the EAP group, all of the women stated they had never participated in any kind of group therapy prior to this experience and were hesitant to agree to participate. One woman said that the last thing she wanted to do was meet a bunch of other women who had terrible relationships like herself and sit around and cry and *boohoo* about how terrible their lives were. She said she didn't think she needed [the group] and certainly didn't need new *therapy friends*. She then stated she felt like the group had really changed something for her, that she wished everyone could have an experience like this one.

Observational data highlighted the women's similar backgrounds, exposure to a common experience, and ability to move toward change as arguably some of the most powerful components of the EAP group's experience. Exposure to women similar to themselves seemed to be a catalyst for insight into the role of isolation in their relationships. Several women thought of themselves as being the only person in their particular situation – how they felt they could never speak about their situation to anyone, including their family members. This shared *return from isolation* may have contributed to an almost immediate capacity to make positive changes in their lives.

Anecdotal evidence captured the impact of EAP with adult female victims of IV. The observer in our study pointed to the parallels the participants were able to identify in their own lives. "A participant spoke of how the horses accepted her for who she was, how she finally felt accepted as she was and how she just cried at this feeling. Another said, 'We are so much stronger than we give ourselves credit for.'" The observer also noticed that a number of the women did not display what one would call *body awareness*. The horses were often in their space, literally in their face in many circumstances. She observed the women learning to be more aware of how they managed the space around them and how they felt confident enough to assert themselves, move on, or redirect the horses. This general awareness came through in many of the stories they told about what was or had happened in their personal lives outside of the arena. The women's comments were poignant and profound, relevant and applicable.

According to the observer, two main factors were observed to influence the EAP group's outcomes: being with the horses, and being with each other. A third main factor may have been the journaling experience itself. The horses provided a safe place where the women could project their own stories, their fears, their feelings, their dreams and their questions. Their journals were proof of how much they perceived the horses to be listening *to them*. Secondly, because they had felt isolated prior to EAP group, their weekly conversations with each other indicated they felt part of a larger community – one where other people experienced similar situations. Overall, it became apparent to the MH and ES that the EAP group was motivated to change in a relatively short period of time – eight weeks. They did not interfere in the change process, as the women gleaned more from their interpretation of their own experience than a classic *meaning-making* process often seen in traditional talk therapy.

An important complementary clinical activity when providing EAP to individuals with trauma may then be journaling. The journaling process under the trees, by the arena in a safe place, with the MH and ES standing by, may have expanded the opportunity for the women to feel and think in the moment – culminating in an opportunity for catharsis and self-reflection – individually and as a group. The COM group had no such culminating experience weekly, and their journals continued to exhibit a shallowness of content, especially in the areas of thought and feeling.

Limitations and Future Research

This pilot study of EAP was an exploratory, mixed methods study. The sample was small due to the limitations of funding, time, and access. Study participants were recruited through convenience sampling techniques. The EAP intervention was offered over eight weeks – a relatively short intervention period. Though depression, anxiety, general functioning and self-efficacy were measured, the women were not asked how they thought the journaling process impacted their self-efficacy – which is something the researchers now strongly suggest for future studies because the impact journaling may have on self-efficacy among trauma victims warrants more exploration. Further, the quantitative findings cannot be generalized. In the light of the qualitative findings, a number of environmental influences impacting the outcomes must be considered, not the least of which is researcher bias.

Identified strengths of the research were the focus on a sample from a population living in poverty that is under-served in treatment and under-represented in the EAP literature and the addition of journaling immediately after the EAP experience. In this study, journaling immediately after EAP appeared to elicit release and relief of emotions and increase in depth of self-reflection – both of which were captured in the written words of the women, and may have added value to their experience as well as their overall treatment outcomes.

To address concerns about costs generally associated with EAP – which is gaining momentum as a brief, solution-focused experiential therapy – providing a clear cost-benefit analysis may motivate managed care organizations and others to fund EAP services. Cost-containment strategies could include, depending on the therapists' fees and fees for equine and facility use, an increase in the number participating per group, scheduling more groups over the same period of time, and partnering with therapists who are interested in making a contribution to the evidence for EAP effectiveness and are willing to discount fees for such a purpose. Gas vouchers or agency vans can provide needed assistance when the equine facility is located some distance from the clients; however, some creative EAP providers are bringing EAP *to-the-clients*; that is, horses, therapists, and round-pens are brought to the place of service, and sessions are provided on-site at the agency on its property – if possible, practical, and safe.

Some practitioners are recommending the use of canines instead of horses as a cost-saving measure. The above-mentioned impacts of EAP may be influenced, in part, by the *nature of horses*. Whereas dogs are predators, horses are prey. Horses' behaviors reflect high levels of curiosity but this is primarily due to the instinct of fear. Whereas dogs typically come to us without fear, horses, by nature, do not. Their *hyper-vigilance* is a means whereby they constantly perceive and respond, and they are keenly aware of the environment as a result. They

remain masterful at observing the body language of other horses and potential predators, including humans. That is why so much of the EAP literature describes horses as *mirrors* that reflect back to humans their thoughts and feelings – in many cases before the humans realize what it is they are thinking or feeling (EAGALA, 2013).

Today's environment is difficult for female victims of abuse who struggle to assimilate into a majority culture different from their own. Even if they access services, statistics indicate they stand a very small chance of making major positive relationship decisions, for most are dependent upon the perpetrator for meeting their basic needs. These women are bombarded with media messages promoting fancy cars, fancy clothes, and fantasy families living the best of the American dream. Depression and anxiety are increasing and hope is dwindling – and we wonder, where is nature in their human system? Might EAP provide female victims of IV with a link back to nature, to their physical selves, and the strengths they have forgotten?

Although the researchers believe EAP shows promise with behavioral and social issues across the human lifespan, existing research has yet to provide a substantial body of evidence for its efficacy. More research is recommended including larger samples and probability sampling techniques, control groups from waitlisted clients who are next to receive EAP, and longer sessions that include journaling as a form of debriefing that can provide qualitative data and give participants the opportunity to review their thoughts and feelings for self-reflection and growth. Ideally, longitudinal studies that include 30, 60, and 90 day follow-up contacts should be conducted as well. Ultimately, to build a stronger evidence-base for EAP, both its short and long-term benefits need to be understood on a number of the psychological indicators of adjustment and well-being. Considering that EAP is being considered for addition to existing clinical treatment regimens as it grows in popularity as a clinical intervention, it may be that tomorrow's researchers will have more access and more easily study its impact on human behavioral and social problems across the lifespan.

This pilot study has provided insight into the impact of EAP on the self-efficacy of adult female victims of IV. In addition, some of the mechanisms underlying benefits conveyed from the addition of EAP to conventional treatments were presented, especially for adult female victims of IV who were receiving case management and group therapy from a small non-profit organization. These women were studied because they are a marginalized population that is under-served in EAP treatment and under-represented in the literature.

Once the study was complete, the EAP group participants returned to their agency for continued treatment and services. Their therapists were surprised at the changes they could see in their clients, several of whom were actively regaining control over their lives. The women were observed beginning to use newly developed problem-solving skills that may have been an outcome of gaining deeper insight into their experiences during EAP. Several weeks after the study was over, the therapists from the social service agency asked the EAGALA-certified professionals to create an EAP group for *them* so they could experience – for themselves – what had made such a positive impact in their clients' lives. The EAGALA model was implemented and an eight-week EAP group was created and delivered just for the therapists, including the clinical director of the agency.

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