

Horse talk: Equine based learning programs and their engagement with individuals

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Studies about equine therapies or equine experiential learning recommend that significantly more research, specifically longitudinal research, across age groups, genders, contexts and client cohorts needs to occur in diverse contexts. There exists diverse equine-related programs which engage with a range of cohorts, specifically; young children who have experienced abuse; adolescents who have experienced abuse and family violence and adults who have experienced family violence, psychiatric disorders, social anxiety and social isolation. The most common outcomes from the equine learning program studied for this article, from the case-studies and the thematic analysis includes; behavioural changes, stress relief, mind and body awareness and control, forming a relationship with an intuitive practitioner, guided meditations as a means of creating independent meditation techniques and re-engagement with education, work, friendships and family relationships. The mind–body awareness that is gained by participants of the program provides skills and techniques for individuals (and families) to utilise in every-day, with lifelong learning a crucial aspect of the program.

Keywords: equine, learning, behaviour, engagement

Context

The history of the relationships between humans and horses is an extensive one encompassing the mythic horse (winged horses, unicorns); the horse as worker (farms, carriages); the horse as hero (light horseman of WWI); the horse as competitor (equestrian, horse-racing, trotting); the horse as companion/pet and now the horse as therapeutic assistant (Frewin, & Gardiner, 2005). The horse remains visible in popular and national cultures during modern times, Australian icons such as Phar Lap and more recently, Black Caviar and Winx being widely recognisable. The jackaroo and jillaroo work in the Australian outback still attracts people of all ages to the romance of horses, cattle, bush and dust. The horse is visible on the streets when used by police to manage large crowds in urban areas and the horse is still used on the streets of Melbourne, Maldon, Echuca and Swan Hill in Victoria, pulling carriages and wagons for tourists and locals to evoke the feeling of Victorian life and the gold rush days of our history.

The horse has come to prominence over the past decade as a therapeutic assistant or tool in processes like Riding for the Disabled and Equine Learning and Equine Therapy programs. However the question remains; is the horse any more effective as a therapeutic tool than the human counsellor, art as therapy, or the use of dogs working with children with autism? Reflective of its early developmental stage, much of the published literature on 'equine assisted programs' (EAP) is practice-based, rather than research or theory-based. A meta-analysis of Animal Assisted Therapy (AAT), which examined 49 studies, concluded that:

Overall, AAT was associated with moderate effect sizes in improving outcomes in four areas: autism-spectrum symptoms, medical difficulties, behavioural problems, and emotional well-being. Contrary to expectations, characteristics of participants and studies did not produce differential outcomes.

(Nimer, & Lundahl, 2007)

A growing number of studies using standardised measurements pre- and post-intervention have explored the potential of EAP for 'increasing

positive and reducing negative behaviours as well as in proving beneficial for those suffering from general mental health problems' (Cantin & Marshall-Lucette, 2011). EAP has shown positive impacts on children, adolescents and adults with histories of family violence, childhood sexual abuse and depressive symptoms as evidenced in some studies by changes in the Child Depression Index or Beck Depression Inventory (Kemp, Signal, Botros, Taylor, & Prentice, 2013; Signal, Taylor, Bostrol, Prentice, Kazarus, 2013), social communication and sensory processing skills of primary-school aged children with autism (Gilliam Autism Rating Scale 2nd Edition (GARS-2) and the Sensory Profile School Companion (SPSC) (Ward, Whalon, Rusnak, Wendell, & Paschall, 2013).

Measurements have also been used for psychosocial variables in children with autism (Behaviour Assessment System for children) (Garcia-Gomez, Lopez Risco, Rubio, Guerrero, Garcia-Pena, 2014); attention and memory in children with cerebral palsy (response times to 'numeric square test' and 'verbal learning test') (Krejci, Janura, & Svobada, 2015) and adults with mental health issues Brief Symptom Inventory (BSI) and Personal Orientation Inventory (POI) (Klontz, Bivens, Leinart, & Klontz, 2007).

In recent years, more studies have been published that explore and analyse data around the participation of various cohorts of trauma-impacted individuals in processes managed by 'hippotherapeutic centres'. Lojek, Pluta, Ciesla, Domachowska, and Przybylowicz (2015) explored different breed types of horses and their suitability for EAP concluding that of the 47 horses in nine centres studied in Poland that geldings, commonly aged between 10–15 years of age and of diverse body size and heights were being used, connecting to the diversity of clients utilising these services.

Qualitative data from programs in the USA revealed that a form of therapeutic riding is typical of the programs that have been documented, whereby individuals engaged in equine experiential programs report outcomes such as muscle development in children, behavioural change in individuals showing social isolation and individuals reporting feeling calmer and more confident (Holm, Baird, Kim, Rajora, D'Silva, Podolonsky & Minishew, 2014). Other studies explore parent's perception of change in children following participation in a program

with horses, Hussey and Cowman (2015) interviewed parents of visually impaired children which revealed improvement in communications, concentration and general behaviour.

There are few clinical trials or those of pre- and post-testing evaluations but those that do exist are providing some early evidence of the effectiveness of EAP. Klontz et al. (2007) tested 31 participants of an equine-assisted experiential therapy program, reporting statistically significant reductions in psychological distress and increases in psychological well-being which sustained through the six month period following the program. A mixed-methods exploratory pilot study of the impact of EAP on 13 females who had experienced family violence (Whittlesey-Jerome, 2014) revealed greater improvement across self-efficacy, depression and general function in the group that used EAP to supplement existing treatments. Nurenberg, Schleifer, Shaffer, Yellin, Desai, Amin, Bouchard, and Montalvo (2014) studied an animal-assisted therapy program for 90 patients with recent in-patient violent behaviour and found that there were specific benefits of EAP with reduced violence amongst participants over the treatment period compared to those adults who didn't participate in the EAP.

Pendry, Smith, and Roeter (2014) conducted a randomised clinical trial involving saliva testing pre- and post-participation in an eleven week equine facilitated program, testing afternoon cortisol levels following participation in weekly 90 minute sessions. Children in the group had lower afternoon cortisol, and lower total cortisol concentration compared to the children on the waiting list to attend the program. Cortisol is a steroid hormone produced by the adrenal glands. Whenever we experience something the body perceives as a threat, like a large dog barking, a chemical known as adrenocorticotrophic hormone (ACTH) is released into brain. This triggers the adrenal glands to release cortisol and adrenaline.

Cortisol is the main hormone involved in stress and the 'fight-or-flight' human response. This is a natural and protective response to a perceived threat or danger. Increased levels of cortisol result in a burst of new energy and strength. In the fight-or-flight response, cortisol suppresses any functions that are unnecessary or detrimental to that response. During a fight-or-flight response, individuals experience rapid heart rate, dry mouth, stomach upset, diarrhoea and/or panic. Cortisol also

suppresses growth processes, suppresses digestive systems, suppresses reproductive systems and changes how immune systems respond.

Pre- and post-testing for maladaptive behaviours in a comparison between equine assisted counselling and classroom-based counselling for 164 students at high risk of academic and social 'failure' (Trotter, Chandler, Goodwin-bond, & Casey, 2008) found statistically significant improvement in seven out of 17 behaviour areas, including; emotional symptom index, personal adjustment composite, social stress scale, self-esteem scale and the depression scale. Another study of 63 children who participated in a mean of 19 EAP sessions and tested using the Global Assessment Function (GAF) scale found that the greatest improvement was amongst the youngest children and there was a quick response to EAP amongst younger children especially those who had experienced physical abuse and neglect (Schultz, Remick-Barlow, & Robbins, 2007).

The conclusions that can be drawn from this literature is that all studies recommended that significantly more research, specifically longitudinal research, across age groups, genders, contexts and client cohorts needs to occur in all EAP and AAT contexts. The studies mentioned here reveal that there may be a measurable impact of EAP on a range of cohorts, specifically; young children who have experienced abuse, some adolescents who have experienced abuse and family violence and adults who have experienced family violence, psychiatric disorders, social anxiety and social isolation. However, it should be noted that there has been no research into the comparison between what could be very different kinds of EAP or AAT, that is, all EAP and AAT programs seem to have different models depending on the influences and preferences of the facilitator. As such there has been no previous examination of the role of the EAP or AAT facilitator in each of the programs as compared to the role of the horse or animal in any specific program.

Research methodology

This research used the Most Significant Change Technique (MSC), which was initially developed by Davies (1996, 2005) for the evaluation of social development programs in rural Bangladesh. MSC involves the collection of significant change (SC) stories at the 'field' (or in this case direct practice) level where diverse and emergent outcomes are produced by a complex program. During the systematic story selection

process, stories are assessed as the most significant by a panel of stakeholders (often comprising staff and funders), involving in-depth discussions about the value of the changes that have been reported (Davies, & Dart, 2003, 2005).

MSC stories are collected from people most directly involved in one equine learning program in Victoria, Australia during 2015 and 2016. Sixteen participants and their parents or their human services workers, participated in the research through unstructured interviews that aimed for responses to the broad question ‘During [specified time frame], in your opinion, what was the most significant change that took place for participants in the (equine learning) program?’ (Davies, & Dart, 2005, p. 10).

The ‘domain of change’ (Davies, & Dart, 2005) indicated in the question may vary from program to program. In the case of the sixteen stories being collected, the ‘domains of change’ may unnecessarily complicate the process. The story selection panel then considers responses to this MSC question, and identifies the most significant change of all (by responding to a question such as ‘From among all these significant changes, what do you think was the most significant change of all?’ (Davies, & Dart, 2005, p. 10).

MSC is seen as a useful alternative where traditional evaluation techniques are not able to make sense of the effects of a program. MSC can be utilised as a continuous process of program monitoring and evaluation and does not merely focus on accountability, but also on learning (Davies, & Dart, 2005). MSC also allows for the unique voice of the respondent when capturing the impacts of the program, and the story collection process can enable respondents to reflect on and articulate the SC that had occurred, thereby constructing meaning. During the process of story selection, the review panel is able to construct additional meaning (Davies, & Dart, 2005).

In this case, MSC had been utilised to evaluate, post intervention, the engagement and outcomes of a specifically customised equine learning service. Stories were collected from 16 participants, who self-selected, by a field researcher independent of the equine learning service over a three month period in 2016. The respondents related their observations from the perspective of the following backgrounds and relationships with the equine learning service.

The sample consisted of five adult clients, five parents of clients, two school well-being officers and two-community based case workers. The researchers conducted semi-structured qualitative interviews, with the aim of identifying the most significant change that took place for participants in the program. A central part of MSC is open questions to the respondent, allowing them to use their own judgment in selecting the significant change in the client. The researcher asked each interviewee: 'In your opinion, during your involvement with this equine learning program, what was the most significant change that took place for you/participants?'

The interviews were then phrased informally in four questions:

1. Tell me how you (the storyteller) first became involved with this program (equine learning) and what your involvement in the program was.
2. From your point of view, describe a story that best describes the most significant change that has resulted from your involvement in this program.
3. Why was this story significant for you?
4. Have you participated in other types of therapies and/or assisted learning processes in the past, and how has this one differed from those?

Interviews were audio recorded, transcribed, and the transcriptions systematically analysed by the selection panel. Due to timeframe constraints and potential conflict of interest from other stakeholders, this panel was the research team. All transcripts were also fed into NVivo and thematically analysed to ensure no specific common themes were missed in the MSC change process. MSC stories that articulated significant program impact were developed and along with the reasons for the choice of these stories are presented in a research report with excerpts in this article.

Equine learning as a service delivery model

'I pretty much imagined everybody around me were horses. It does sound crazy but I just imagined it. I put myself back in that situation and thought "they're [people are] going to imitate to me how I'm treating them, so they'll treat me meanly if I'm treating them meanly and the horse is exactly the same thing". So if I put off a mean or an angry vibe, they're going to sense that and do that to me. I just used my anchoring and my grounding. I did grounding every morning when I woke up or I laid in bed. You can do it laying down, standing up. You could sit down and do it. It's just that becoming one with yourself.'

(Townsend, Sadowski, Phillips, & Hood, 2016)

The equine learning facilitator of this equine learning program in Victoria, Australia has personally been involved with horses and riding of horses for over 30 years, since she was three years old. Up until 2010 she had been a traditional horse-person, riding stock-work on the family farm and for 6 years she rode racehorses in track-work at the racetrack. Her respect of the horses' sensitivity and intelligence has changed significantly over the past six years. She now approaches her relationships and connections with horses from a greater awareness that honours mind, body and spirit of both the horse, the individual and the interaction between the two of them.

As the sole facilitator of the equine learning program, the facilitator's specific human services coaching and counselling training has included: Certificate IV in Disability; Advanced Diploma in Transpersonal Counselling (Phoenix Institute of Australia); MBIT - Mind Body Integration Coach; Level 1 – Reiki, Certified Life Coach and a Certificate IV in Training and Assessment (Townsend, et al., 2016)

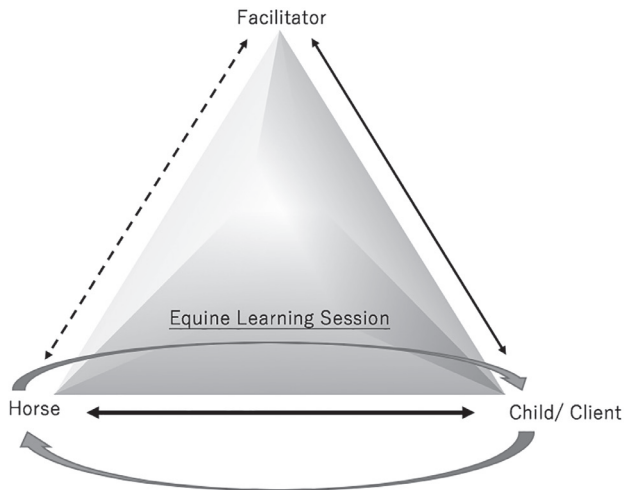


Diagram 1: Illustrates the interaction between facilitator, child/client and horse during further sessions, this change in dynamics occurs when mutual trust has been established between horse and child/client creating a stronger bond. The link between horse and facilitator changes and the dynamic between all three becomes more about mind and body experiences. The facilitator steps back when this has been achieved. Re-establishing connection when the current process is integrated and next task needs facilitation (Townsend, et al., 2016).

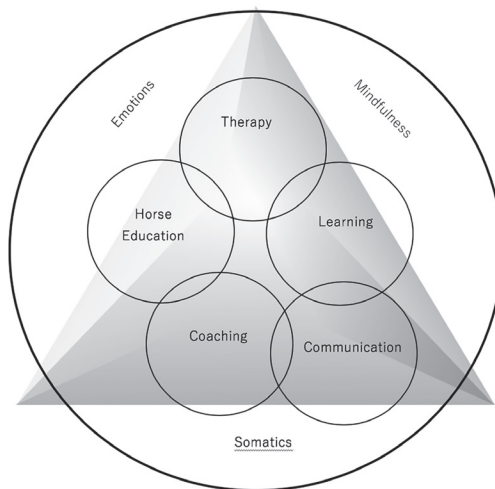


Diagram 2: Describes the multi-faceted factors that are part of the whole process during the equine learning program. Each facilitator–client approach is multi-faceted as it acknowledges the trauma of the client and engages in a range of mind–body experiences that are client-centred and based on techniques from other therapeutic frameworks (Townsend, et al., 2016)

The multi-faceted equine learning program discussed in this article can also be described here in Table 2, as a linear process, even though for many clients it may be a circular process. Also noteworthy is that the clients who cannot access the equine learning program include clients of child protection (DHHS), TAC and adult clients of mental health services who are unable to self-refer, due to cost and the lack of subsidies available by these agencies. The limitations of referrals tend to be about a perceived lack of knowledge and evidence of the validity and effectiveness of equine experiential learning/interventions.

Table 1: Equine Learning Program as a linear client engagement process

Client referral	Adult clients are self-referred via the equine learning web-page or Facebook page. Adolescents and children are referred to equine learning from school well-being officers, DHHS, employment agencies. Problem identification (PTSD, anxiety, social isolation, negative behaviours) has occurred via case-worker.
Session 1	Assessment of client’s ability to ‘orient self as safe’ at the equine learning venue, which is outdoors in a bush setting with a horse arena, a small enclosure, horses, ponies and other small animals (dog, sheep). This session will/may include activities to get the client to focus on their breath and breathing, to slow the heart rate and calm emotions.
Sessions 2, 3, 4	Mindfulness activities; introducing and developing a relationship with a horse chosen by the client to work with. Mindfulness involves a series of attention-training practices and cognitive strategies that can help individuals unhook from unproductive thought patterns and behaviours. It involves learning to pay attention to the present moment rather than worrying or dwelling on the past.
Sessions 4–8	Clients can often require refresher sessions in the 6–12 months following the equine learning program as their emotions and/or behaviours can slowly ‘slide’ back as normality compared to the newer emotions and behaviours developed through the program.
Sessions 8–10 or 8–12	Emotions; learning new processes of managing destructive, negative emotions that produce stress, anxiety, isolation, anger and associated behaviours.
Refresher sessions	Clients can often require refresher sessions in the 6–12 months following the equine learning program as their emotions and/or behaviours can slowly ‘slide’ back as normality compared to the newer emotions and behaviours developed through the program.

Thematic analysis

‘It’s not just the horses’ ... ‘there’s a whole range of things ...’

The thematic analysis of all 16 transcripts reinforces the multi-faceted nature of the equine learning program, where we can group the words of the participants, their phrases and meaning into the elements outlined in Diagram 2: The facets of therapy, learning, and communication, coaching and/or horse education. This thematic analysis of the interview transcripts was conducted both manually and using Nvivo (6.0) during May–August 2016.

The main themes emerging were:

Being taken (139), as in taken somewhere else, lessons, being accepted, bringing, holding, learning, taking something away from the program, turning up, engaging, being guided (Learning).

See(ing) (125), attending (the program), being asked to, bringing something, engaging, guided, guiding, holding, being involved, training, taking away (from the program), making needs visible (Coaching).

Like(d) (107), care, cared (for), similar, a wish (for something better) (Therapy).

Feeling (104), experiences, (the) experience (of the program), (finding) feeling, feels, fingers, impressed, sense and senses, touch, touched (Therapy).

Horses (96), horse, horses, buck (Horse Education).

Think (95), believe, cerebral, guess, imagine, reason, meaning, reasoning, remembering, thinking, thought, thoughts (Communication).

Make (happen) (83), build, builds, clear, clearly, crap, doing, fixed, gives, giving (a) hit, making, pretend, pretending, reached, reaching, throwing (away) (Coaching).

Know(ing) (73), bang, bed, experiences, knowing, knowledge, love, loved, loved ones, recognising (Learning).

Now (49) immediate, immediately, instant, the present, being present, straightaway (Communication).

How much (48) lots, much, often, practical, practice (Learning).

The main themes of *Learning, Therapy, Communication, Coaching and Horse Education* emerged from the thematic analysis and revealed some tensions in perceptions, and outcomes of this specific program. The terms of equine learning and equine therapy were used interchangeably by all participants and also by the facilitator, however, the main themes of *Learning, Communication and Coaching* seem to allude more the experiential learning frameworks (Blossfeld, Kilpi-Jakonen, Vovo de Vilhena & Bucholz, 201) rather than psycho-social therapeutic type processes. Participants clearly used terms such as lessons, learning attending, training, guided as ways of explaining the processes of the program which had the most significant impact on them and their

behaviours. The words and terms outlined above reveal that once participating in the program then individuals saw themselves as 'learners' and gaining skills and knowledge about themselves by learning about horses and then being guided through processes that impacted their behaviour.

Conclusions

This article summarises one study of one equine learning program facilitated by a sole practitioner. The participants of this equine learning program reflected on the components of the program and on the communication style and learning they experienced. The equine learning program encompasses facilitated observation, communication and embodied experiences that relate human to horse and human to human. The most common outcomes as expressed from the transcripts and from the thematic analysis includes: being taken on a journey, seeing something new, being liked, feeling, thinking and knowing.

The mind plus body awareness that is gained by clients of the program provides skills and techniques for individuals (and families) to utilise in every-day life (Learning) is a crucial aspect of the program. Sometimes the initial contact by the facilitator as intuitive practitioner requires intensive observation and one-to-one communication. Noticing behaviours and allowing individuals to locate feelings that are hidden or suppressed (Therapy). The program then contributes to individuals engaging with the horses (Horse Education) and being led or trained to build their skills, reach out for assistance when stressed and then visioning a new way of feeling (Coaching). The patterns of communication are important as they are human to human and horse to human and human to horse, this transference of emotion is a complex phenomenon, which highlights to all the vulnerability of the client via the vulnerability of the horse. The horse then becomes role model as the facilitator guides the client into behaviour patterns recognised by the horse as calm and measured. This acts as a mirror for the client, who can then proceed to further activities that strengthen relationships within the program and then within their lives.

EAP is an emerging form of trauma-informed practice contrasting against established forms of human services and therapeutic relationships. It is not unique, in that programs are developing across Australia, Europe and the USA. The horse plays a central role in the process of establishing a relationship plus power, the response of the

individual and the sentient. However, it is the philosophies, experiences and role of the facilitator, their passion, their processes of engaging with each individual client and their flexibility in adjusting the program for each client or group of clients plus the ability to recognise trauma in each individual, that allows the whole equine learning process to work.

There is no evidence of the long-term impact of equine learning programs, however, there is some evidence of short-term impact and significant behaviour change by mostly female participants. There is evidence of the need for participants to participate in ‘top up’ sessions at six months and 12 months following participation in the whole program. This aligns with the international research evidence (Townsend, et al., 2016).

There is significant buy-in for this particular program from human services agencies and schools across the western region of Victoria, Australia, however, funding can be difficult to locate for individual clients or families to participate (Townsend, et al., 2016). Clients are reporting and demonstrating to others, significant changes in their engagement with education, work and their relationships following participation in the equine learning program. This is most often the aim of referral agencies, case-workers and schools, to get individuals to re-engage with their services so that further learning and development for individuals can occur.

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