# November, 2016 PILOT STUDY



# Eagle's Nest Youth Ranch Therapeutic Horsemanship Program

# Background & Purpose

### **Animal Assisted Intervention (AAI)**

"is a broad term now commonly used to describe the utilization of various species of animals in diverse manners beneficial to humans (American Veterinary Medical Association, 2016). It is commonly "a goal-directed intervention designed to promote improvement in physical, social, emotional and/or cognitive functioning of the person(s) involved....[It] can also be less goal-directed, more casual or spontaneous" (Animal Assisted Intervention International, 2016).

Therapeutic Horsemanship (TH) is a type of AAI. It is a subjective term though and defined quite variously (Good Horsemanship, 2016). TH commonly focuses on the care and management of horses, and this can involve horse riding or not, including activities on the ground with and around the horse (Smith-Osborne & Selby, 2010).

Therapeutic riding specifically involves "the use of the horse...to achieve a variety of therapeutic goals, including physical, emotional, social, cognitive, behavioral and educational goals" (Lesick, Shinaver, Post, Rivera & Lemon, 2004, 48). This most often includes a strong focus on the riderhorse relationship (PATH Intl, 2016).

This empirical fact sheet shares the history and findings of a pilot study of the Eagle's Nest Youth Ranch Therapeutic Horsemanship (TH) Program.

The Eagle's Nest Youth Ranch (ENYR) TH program aims to improve the quality of life for children and youth in residential care by incorporating horses and using experiential therapeutic processes with horses as part of treatment plans.

As part of a multi-site project, the aim of this pilot study is to identify the outcomes/effects of the ENYR TH program, focusing specifically on the riding session component.

Academic scholarship has shared a range of potential benefits from therapeutic horse riding. However, there is a need for more studies to examine the effectiveness of riding therapy, and specifically the psychosocial and mental health benefits (Birch & Hong, 2007; Snider et al., 2007).

Drawing from the AAI literature, the concepts of love and support are examined for if and how clients experience them, and key outcomes from past studies are measured. This study was not designed to specifically measure the objectives of the TH program, although insight is offered from the findings. Feedback is collected from ENYR program participants and staff, and the TH program facilitator.

# **ENYR Therapeutic Horsemanship**

Eagle's Nest Youth Ranch (ENYR) is a non-profit organization, founded in 2007, that provides a therapeutic group living environment for over 100 of Saskatchewan's vulnerable children and youth. Between the ages of 10 to 21 years, these children and youth may be experiencing social, emotional and behavioural difficulties. The program provides 24-hour care, supervision, counseling and education. A holistic and developmental approach is used to meet the physical, mental, emotional and spiritual needs of the children and youth and their families.

Through its programming, ENYR aims to provide the children and youth in its care with a safe environment, where they receive nurturing, respect, guidance and discipline from caring adults. The philosophy underlying ENYR programming emphasizes the im-

portance of a sense of belonging in the development of a healthy self concept, while still recognizing the unique needs and strengths of each individual.

In 2013, ENYR began offering a Therapeutic Horsemanship program at its North Fork Equestrian Centre, in Saskatoon. The objectives of the TH Program include: 1) to provide opportunities for children and youth to become healthier through increased opportunities for experiential learning with horses, 2) to enhance the therapeutic alliance and engagement with children and youth through the use of horses, and 3) to help children and youth in care achieve specific goals related to their physical, social, cognitive, emotional or spiritual needs through the use of horses.

Case managers refer children and youth to the program based on their treatment plan and an identified need for additional supports in achieving their goals. They participate in weekly sessions for eight months to develop basic horsemanship skills, including riding.

ENYR's TH program centres on establishing a relationship between the participant and horse as an essential step in the process of working toward therapeutic goals and is an essential precursor to horse riding. An Elder and other community members provided ongoing insight to the program on the healing benefits of animals and nature from an Indigenous worldview.

Name of horse	Breed of horse	Age of horse	How long in TH program	How often the horse works
Roo	Pony	12	ı year	3 days/week
Corby	Arabia/ Quarter Horse	15	ı year	3 days/week
Sassy	Arabia/ Quarter Horse	8	ı year	3 days/week
Mailbu	Arabia/ Quarter Horse	18	ı year	3 days/week
Sugar	Quarter Horse	24	ı year	3 days/week
Nifty	Quarter Horse	13	ı year	3 days/week
Saiga	Welsh/Cobb	10	ı year	3 days/week
Sequon	Quarter Horse	14	ı year	3 days/week

## Research Methods

This pilot study was designed on a limited scale to gain insight into the session outcomes for the program and to develop a future robust study.

The data collection was two-fold via a questionnaire. Qualitative, open-ended inquiry documented participant, facilitator and staffs' subjective experiences, meanings and processes (Denzin & Lincoln, 2008). This approach recognizes that others' perspectives lend to the co-creation of individuals' stories such that they can collaboratively unfold (i.e., clients, staff and facilitator) (Creswell, 2003). Quantitative, Likert scales documented outcomes in areas identified from the literature.

The data was collected from August to October, 2014 (participants) and June to November, 2014 (staff and facilitator). Although not methodologically ideal, all data was included. A total of 17 program encounters were analyzed, with 17 participant, 11 staff, and 51 facilitator questionnaires completed. Five horses were involved in the data collection with nine youth that filled out questionnaires. Between one to five individuals were in each session, ranging in age from 10 to 22. Client demographics do not take into account that participants may have attended more than one session.

The children and youth participants were presented with a questionnaire at the completion of each session, and filled it in on-site and out of the presence of the facilitator and staff. The facilitator and staff completed questionnaires immediately after the session.

Client Demographics (N = 17)			
Gender	Male	10	59%
	Female	7	41%
Ethnicity	First Nations or	11	
	Metis	11	65%
	Caucasian/Other	6	35%
Age	Youth	15	94%
	Adult over 17	2	6%

### Facilitator Demographics (N=1)

Education BA, BSW

Years in field 10 years human service

experience

Expertise 17 years riding instructor; Level

1 EGALA

The 10 staff who attended varied in their ENYR positions (e.g., primary case worker, casual staff). Most attended with the participants because they were tasked with transporting them to the Equine Centre.

# Data Analysis

The data collected using the Likert scale was analyzed quantitatively for descriptive statistics (i.e., mean and frequency). Means and frequencies were compared to provide an indication of highest means and largest proportion of agreement on items. T-test mean comparisons were conducted on how a client felt before and after spending time with the horse.

The qualitative data was analyzed through an inductive thematic analysis. Such an analysis seeks to identify recurrent patterns, or themes, in textual data. These themes were compared with others and clustered based on similarity in meaning (Saldana, 2010). The frequencies presented here may not sum to the sample size because sentences can be thematically coded more than once. All data was reviewed and interpreted by our multi-disciplinary team. Two sample z-test proportional differences were examined for significance for each theme by gender (p < .05).



# Partnership & Ethics

This pilot study was initiated through a Canadian Research Initiative in Substance Misuse grant, funded by the Canadian Institutes of Health Research to researchers Dr. Colleen Anne Dell at the University of Saskatchewan, Department of Sociology & School of Public Health, and Dr. Darlene Chalmers at the University of Regina, Faculty of Social Work

This collaborative project builds on existing relations, extensive expertise and scholarly and practice-based experience among a multi-disciplinary team that includes researchers,

Indigenous Elders, government decision makers, service providers, communications experts and individuals with lived experience.

Ethics exemption was granted from the Universities of Saskatchewan and Regina Human Research Ethics Board given the project's evaluative focus. Animal Research Ethics Board review was not required given the evaluation did not actively involve the researchers in direct animal

The findings of this Fact Sheet cannot be directly compared to others in the series as they vary in client presenting needs, therapeutic approaches and species (e.g., horses are prey animals and dogs are predator animals).

# Becoming a Therapeutic Riding Horse & TH Facilitator

The ENYR TH program facilitator has Level 1 EAGALA certification. This is in addition to 20 plus years of experience with horses including starting, training and riding in various disciplines. The facilitator is also a registered social worker with a range of human service experience in the areas of child protection and child welfare. This has importantly included working with First Nations children, youth and families from a culturally and trauma informed approach. The facilitator is the main horse handler.

Attending ENYR staff sometimes assist with the HR program while there. On occasion, volunteers from outside the program also assist with the sessions. Everyone assisting must have horse knowledge and be comfortable working with the horses and participants. Safety for the children, youth and horses is a priority. All persons interacting with the horses must wear appropriate clothing and adhere to the program's safety policies and procedures.

The majority of horses in the riding program were obtained by donation or lease arrangements. All horses are evaluated for health issues and their behavior. They are also screened for temperament as they must be able to comfortably interact with humans and within the program environment. The horses are exercised regularly with ongoing training related to the program activities.

# **Findings**

### Participant: Rated Items

The 9 participants (5 male, 4 female) were asked to rate ten items, using a 5-point Likert scale ('Not at all' to 'Yes, a lot' OR Smiley/Sad Faces).

In response to whether they liked spending time with the horse, 71% responded 'Yes, a lot', 29% responded 'Yes, a little', with an overall average of 4.7. Males and females were similar in their response about spending time with the horse.

Clients strongly rated how they felt in the time they spent with the horse. However, females were less positive about their being loved by the horse (average 3.6 with 43% responding 'Yes a lot' and 43% unsure). On the other hand, males averaged 4.7 with 70% responding 'Yes, a lot' and 30% responding 'Yes, a little'. All clients were in strong agreement about their time spent with the Facilitator (average of 4.9).

1='Not at all' and 5='Yes, a lot'	Female Average	Male Average	All Average
Liked spending time with horse	4.7	4.7	4.7
Comfy around horse	4.6	4.7	4.7
Horse loves me	3.6	4.7*	4.2
Facilitator was nice to me	5.0	4.8	4.9

(\*Males significantly higher at p < .05)

The participants had positive feelings after time with the horse and a large majority rated feeling calm, with an average of 4.6 and 88% in agreement. Overall, males and females were similar in their ratings, with females a bit higher. The rating for feeling in better control of their feelings afterwards is somewhat lower for females with an average of 3.4; however, this average was influenced by one female client that had given it a rating of 'No, not at all'.

1='Not at all' and 5='Yes, a lot'	Female Average	Male Average	All Average
Feeling anxious	1.3	1.6	1.5
Feeling calm	4.9	4.4	4.6
Better control of feelings	3.4	4.1	3.8
Unhappy	1.7	1.7	1.7

Of 17 participant responses to the final two questionnaire items, on average, they rated their feelings as about one face happier after being with the horse (3.7 to 4.4), which was statistically significantly higher (p < .05).

1='Very Sad Face' 5='Very Happy Face'	Female Average	Male Average	All Average
How felt before with horse	3.4	3.9	3.7
How felt after with horse	4.3	4.5	4.4*

### Participant: Qualitative

**Question:** Did you like spending time with the horse today?

**Who responded:** Client: 17 of 17 (100%) [10M, 7F]

**Themed frequency:** (reported by grouping only when different)

Like horses (8, 47%) [40%M, 57%F] Enjoyment (7, 41%) [50%M, 29%F] Love horses (3, 17%) [20%M, 14%F]

**Question:** How did spending time with the horse make you feel?

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**Who responded:** Client: 17 of 17 (100%) [10M, 7F]

**Themed frequency:** (reported by grouping only when different)

Enjoyment (excited, good, awesome) (12, 71%) [80%M, 57%F]
Happy (7, 41%) [50%M, 29%F]
Good (5, 29%) [40%M, 14%F]
De-stressed (1, 6%) [0%M, 14%F]



Question: Other comments

Who responded: Client: 1 of 17 (0.05%)

[0M, 1F]

Themed Frequency:

"I loved hugging Sassy." (1, 100%) [0%M, 100%F]

### Facilitator & Staff:

### Rated Items

The 51 facilitator and 11 staff responses included rating their observations of the participants on three items using a 3-point Likert scale (Yes, Unsure, No).

3= 'Yes' Client felt	Staff Average	Handler Average
Loved by horse	2.9	2.92
Supported by horse	2.9	2.94
Supported by handler	3.0	2.96

Overall, on all three items, the facilitator and staff responses were in almost unanimous agreement that the clients felt loved and supported by the horse, as well as received facilitator support (average between 2.9 to 3).

### **Staff:** Oualitative

**Question:** What did you see or experience that made you think that spending time with the horse made the client feel loved?

Who responded: Staff: 10 of 11 (92%)

Themed frequency:

Connection to horse (cared for horse, showed affection) (6, 60%)

Positive physical reaction to horse (smiling, talking to horse) (5, 50%) Loved horses (3, 30%)



**Question:** Do you think that spending time with the horse made your client feel supported?

Who responded: Staff: 9 of 11 (82%) Themed frequency:

Positive relationship with horse (friends with horse, talking to horse) (7, 78%) Support (teamwork, eager to ride) (5, 56%) Loves animals (2, 22%)

**Question:** Do you think that spending time with the facilitator made your client feel supported?

Who responded: Staff:11 of 11 (100%) Themed frequency:

Support (connect, caring, trusting) (6, 55%) Enjoy (like, awesome) (4, 36%)

### Facilitator: Qualitative

**Question:** What did you see or experience that made you think that spending time with the horse made the client feel loved?

Who responded: Facilitator: 51 of 51 (100%) Themed frequency:

Physical connection with horse (31, 61%) Smiling (20, 39%)

Learned something (16, 31%)

Confident (13, 25%) Love horses (9, 18%)

Scared (4, 8%)

Brought up memories (3, 6%)

Not on task (2, 4%)



# Findings continued

Question: Do you think that spending time with the horse made your client feel supported?

Who responded: Facilitator: 51 of 51 (100%) Themed frequency:

Positive relationship with horse (30, 59%) Increased confidence (23, 45%) Willing to try new tasks (18, 35%) Engaged in session (7, 14%) Emotional reaction at session (5, 10%) Talk about future activities (4, 8%) Distracted (1, 2%)

**Question:** Do you think that spending time with the facilitator made your client feel sup-

Who responded: Facilitator: 51 of 51 (100%) Themed frequency:

Willing to try new tasks (25, 49%)

On task (16, 31%)

Happy (13, 25%)

Talked about feelings during session (12,

Asked questions (7, 14%)

Confident (7, 14%)

Significant positive change in behavior (4,

Distracted (3, 6%)

Question: What words would you use to describe your clients' experience with the horse today?

Who responded: Facilitator: 48 of 51 (94%) Themed frequency:

Happy/joyful (23, 48%) Positive (17, 35%)

Love/loving (13, 27%)

Destress /calm/peaceful (13, 27%)

Willing to try (12, 25%)

Enjoyed (11, 23%)

Therapeutic/bonding/reflective (11, 23%)

Successful (11, 23%) Safe (10, 21%)

Confident (9, 19%)

Did not enjoy (2, 4%)

**Ouestion:** Other comments

Who responded: Facilitator: 14 of 51 (27%)

Themed frequency:

Positive relationship with horse (7, 50%)

Traumatic background (7, 50%)

Autistic (2, 14%)

Reported to have volatile behavior prior to session (2, 14%)



# Discussion

The outcomes/effects of the TH program as an option for children and youth experiencing a therapeutic group living environment at Eagle's Nest Youth Ranch are discussed within the three objectives of the Therapeutic Horsemanship program.

Support for each of the program's reviewed objectives was identified, as follows:

### 1. To provide opportunities for children and youth to become healthier through increased opportunities for experiential learning with horses

### Facilitator & Staff

The facilitator and staff strongly agreed that the participants were well engaged during the sessions with the horses because of their connection to and relationship with the horse. They reported witnessing this in the youth talking with the horses, touching and showing affection for them, and smiling a lot both while riding and on the ground. Although not measured directly, improvements in health may result from participating in the TH program. For example, horseback riding is believed to influence multiple systems including sensorimotor, (balance, touch, awareness of body position, eye movements, body movements), cognition, respiration, speech production, and behavioral, social, psychological and spiritual domains (Adams et al., 2014; Birch & Hong, 2007; Casady & Nichols-Larsen, 2004).

### 2. To enhance the therapeutic alliance and engagement with children and youth through the use of horses

The vast majority of participants very much enjoyed the time spent with the horses and felt better because of it. They felt overwhelmingly comfortable around the horses. However, female participants reported feeling less positively about being loved by the horse than male participants.

The participants most common reason for liking the time spent with the horse was that they liked/ loved horses and found the experience to be enjoyable.

"It made me feel like I was doing something awesome." (Participant)

### Facilitator & Staff

The Facilitator and staff near unanimously agreed that the participants felt loved and supported by the horses, as well as supported by the facilitator. Receiving love and support by the horse were both interpreted as the personal relationship (often described as a friendship) that was established between the horse and participant. They also reported feeling that the participants made emotional and physical connections with the

"[She] does not have a lot of outside supports, and I think being with the horses is very therapeutic for her." (Staff)

Horses respond directly to human behaviors, giving participants direct and immediate feedback. This is sometimes not the case with human relationships where there is a greater need for interpretation, including in therapeutic settings. Feelings of acceptance, comfort and relationship with the horse have the potential to greatly assist with the development of a socially accepting environment (Kesner & Pritzker, 2007), and by extension therapeutic alliance with humans associated with the TH program.

The literature shows that the experience of working with a horse can assist children and youth with working through fear, develop empathy, and cooperating with others (Frewin & Gardiner, 2005). Success in horsemanship and riding programs is reported to enhance self-esteem and increase social skills for children and youth and to build self-confidence (DePauw, 1986; Kesner & Pritzker, 2008). The facilitator or therapist is an essential part of guiding these outcomes (Kakacek & Ottens, 2008). The horse, and facilitator, may help break through fears and barriers the participants may have with humans given their histories. This includes recognition that males were significantly more likely to feel the horses loved

### 3. To help children and youth in care achieve specific goals related to their physical, social, cognitive, emotional, or spiritual needs through the use of horses

### **Participants**

The participants rated their feelings significantly more positive after their time with the horses. A large majority of participants agreed that they felt calm after their time with the horse. They also indicated that they felt more in control over their feelings after their time with the horse.

"It made me feel like a leader because I lead the horse around." (Participant)

### **Facilitator**

The Facilitator shared that the participants in the sessions were is a happy, positive and loving space when with the horse. They were also more calm/less stressed and were willing to try the activities with the

"[He] was smiling a lot when he was with the horse. He was in a good mood the entire time, and looked like he cared for his horse." (Facilitator)

An optimal environment for self-development in any context requires key elements, such as participants feeling supported, calm and in control of their feelings to work toward their goals (Bachi, Terkel, & Teichman, 2012). Not only does the TH literatures display this, but it also supports that programs contribute specifically to the development of communication skills (Toukonen Cuffari, 2011), mastery in a new experience (Adams et al., 2015), behaviour change (Carlsson, Ranta & Traeen, 2014; Trotter, Chandler, Goodwin-Bond, & Casey, 2008), trust building (Glazer, Clark & Stein, 2004) and ability to work on a team (Dell et al., 2011). Being in the horse's environment can also provide opportunities for skill development related to the care and nurturing of the horses (Yorke, Adams & Coady, 2008). There may also be a place to interact in this environment to help the youth create purpose and meaning (Young, 2005). This is particularly important for First Nations youth in the context of the historical impacts of colonization (Fiedeldey-Van Dijk et al., 2015).

# **Practice & Research Recommendations**



Explore further the importance of establishing the horse-human relationship through non-riding approaches prior to horse riding interventions. Pay attention to the horse and nature interconnection.



ENYR continue to develop its program model that supports a continuum of interventions (non-riding and riding) based on the individual needs of the children and youth in residential care.



Continue to follow gender and other forms of diversity for their impact on the experiences and outcomes of the youth and children in the ENYR TH program.



Undertake future research with a larger sample and ideally conduct a randomized control trial. This is highly needed in the AAI field generally (Bert, Camussi, Pieye & Siliquini, 2016).



Explore the impact of a riding program on the horses and the potential effects on their wellbeing.



Understand that there is significant variation in how TH is applied across programs and therefore there is a need for further exploratory research and evaluation studies designed specific to individual programs



Recognize the horse and First Nations culture are historically linked, and that there is room for further understanding about this in the context of ENYR's TH program.



Formally acknowledge the impact of the TH program facilitator (and staff), because to date limited research explores their unique and essential role in assisting participants in TH programs.

### PILOT STUDY CONCLUSION

The outcomes/effects of the
Therapeutic Horsemanship program
support its three measured objectives,
and this should be fully explored in a
future, robust study.

Given that 65% of the ENYR TH program participants are First Nations or Metis, it is imperative to consider further that "Wellness from an Indigenous perspective is a whole and healthy person expressed through a sense of balance of spirit, emotion, mind and body. Central to wellness is belief in one's connection to land, beings of creation [e.g., horses], and ancestry, supported by a caring family and environment" (Dumont and NNAPF, 2014, p. 3).

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