



**HARTPURY**  
UNIVERSITY



CIO NO. 1169709



# SIRONA THERAPEUTIC HORSEMANSHIP EVALUATION & IMPACT REPORT 2022-23

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This report is a summary of a detailed research study into the outcomes of young people attending Sirona Therapeutic Horsemanship. The study was a collaboration between Sirona and Hartpury University.

## BACKGROUND AND AIMS

The need for provisions such as equine-assisted therapy and learning (EAT/L) has never been greater. 2024 has seen a substantial increase in the number of young people aged 16-24 not in education, employment, or training (NEET), with **872,000 young people** (12.2%) falling into this category (ONS, 2024). These individuals, alongside those in part-time education, account for approximately **40% of our referrals at Sirona**, with **mental health** problems cited as the highest referral reason (**65%**). An estimated **20.3% of children** aged eight to sixteen have a probable mental health disorder (NHS, 2023) and this underscores the **need** for innovative, supportive programmes like those offered by Sirona. A previous research study by Hartpury University at Sirona indicated that equine-assisted therapy and learning programmes at Sirona **significantly increased positive outcomes** such as wellbeing, confidence, calmness and resilience (Wilson, 2020). Therefore, this study aimed to build on this research by evaluating pre- and - post outcomes over a twelve-week programme at Sirona over 2022/23.

## REASONS FOR REFERRAL

- Social/ Emotional Issues
- Mental Health Issues
- Educational Challenges
- Autistic Spectrum
- Learning Disabilities and Difficulties



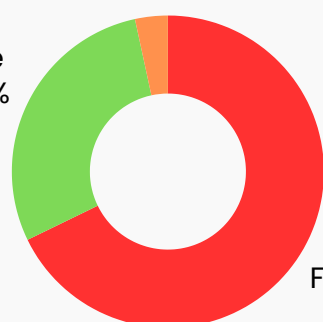
## DEMOGRAPHIC DATA

### GENDER

Non-Binary/Transgender

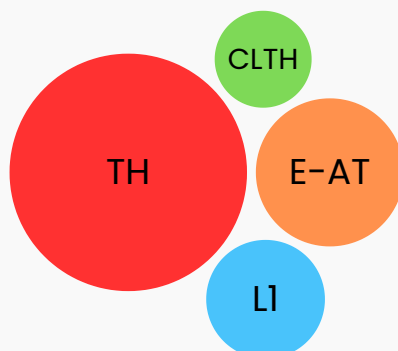
3.4%

Male  
28.8%



Female  
67.8%

### EAT/L GROUP



- **55.38%** Therapeutic Horsemanship
- **13.85%** Level One in Horse Care through Horses
- **9.23%** BHS Changing Lives through Horses
- **21.54%** Equine-Assisted Therapy

## METHODS


In total, 72 young people aged 6–19 years took part in the study and completed quantitative pre- and -post questionnaires at session 1 and again at session 12. These questionnaires were quantitatively analysed using IBM SPSS Statistics 26 software to determine the significance of the impact of the EAT/L programmes.

In addition, 132 participant and caregiver qualitative feedback forms (67 from parents/guardians and 65 from participants) were analysed using thematic analysis in order to gain additional qualitative in-depth feedback. The five areas of wellbeing were assessed using the following outcome measures:



## OUTCOME MEASURES

The questionnaires used were developed alongside young people attending Sirona EAT/L sessions to assess outcomes. For quantitative measures, pre- and post- self-report questionnaires were used, with one response completed at their first session and the other after the twelfth session. To assess qualitative measures, an open-ended feedback form was used. Examples of these can be seen below:



1. My current horsemanship skills are:

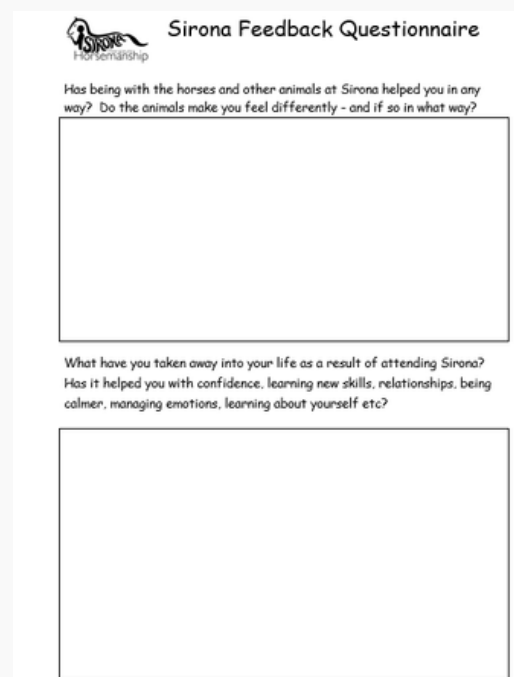
2. I generally feel confident (i.e. at trying challenging new things/meeting new people):

3. I am normally calm when things don't go my way:

4. I am able to understand and communicate my feelings and emotions well:

5. I am good at sticking at things I find difficult or challenging:

6. I generally feel positive and happy about myself and my life:



**Sirona Feedback Questionnaire**

Has being with the horses and other animals at Sirona helped you in any way? Do the animals make you feel differently - and if so in what way?

What have you taken away into your life as a result of attending Sirona? Has it helped you with confidence, learning new skills, relationships, being calmer, managing emotions, learning about yourself etc?

## KEY FINDINGS

**100%**

100% OF PARTICIPANTS AT SIRONA REPORTED IMPROVEMENTS ACCROSS A RANGE OF INDICATORS

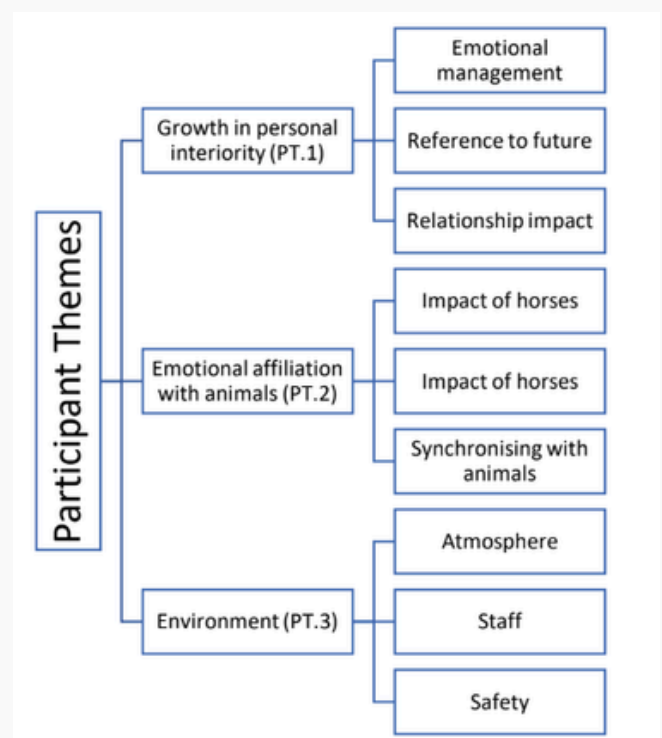
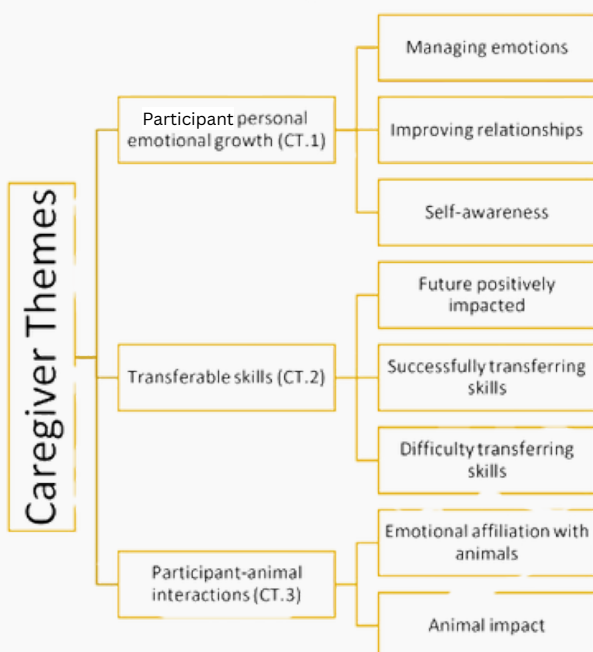
**100%**

100% OF PARTICIPANTS WHO COMPLETED THE OCN-L LEVEL ONE SKILLS IN PROFESSIONAL ANIMAL CARE PASSED THE COURSE

This study supports previous research; indicating that EAT/L programmes at Sirona lead to positive outcomes. Notably, Wilcoxon signed rank tests revealed a median increase of **60%** in self-reported **horsemanship skills** ( $Z=4.519$ ,  $P<0.001$ ), **50%** in **confidence** ( $Z=4.904$ ,  $P<0.001$ ) and **50%** in **understanding and communication** ( $Z=4.716$ ,  $P<0.001$ ). These outcomes are linked to increased resilience which is a key factor in improved life outcomes for disadvantaged young people.

## PARTICIPANT AND CAREGIVER THEME MAPS

Thematic analysis of both parent and caregiver feedback forms revealed several main themes, Participants discussed their relationship with the horse(s) and **animals as relaxed, confidence-giving and strong**. They discussed learning **confidence and horsemanship skills** throughout the programmes. Caregivers mentioned seeing changes in **empathy and techniques to help manage emotions** alongside **reduced feelings of isolation**. The full thematic analysis maps can be seen below:



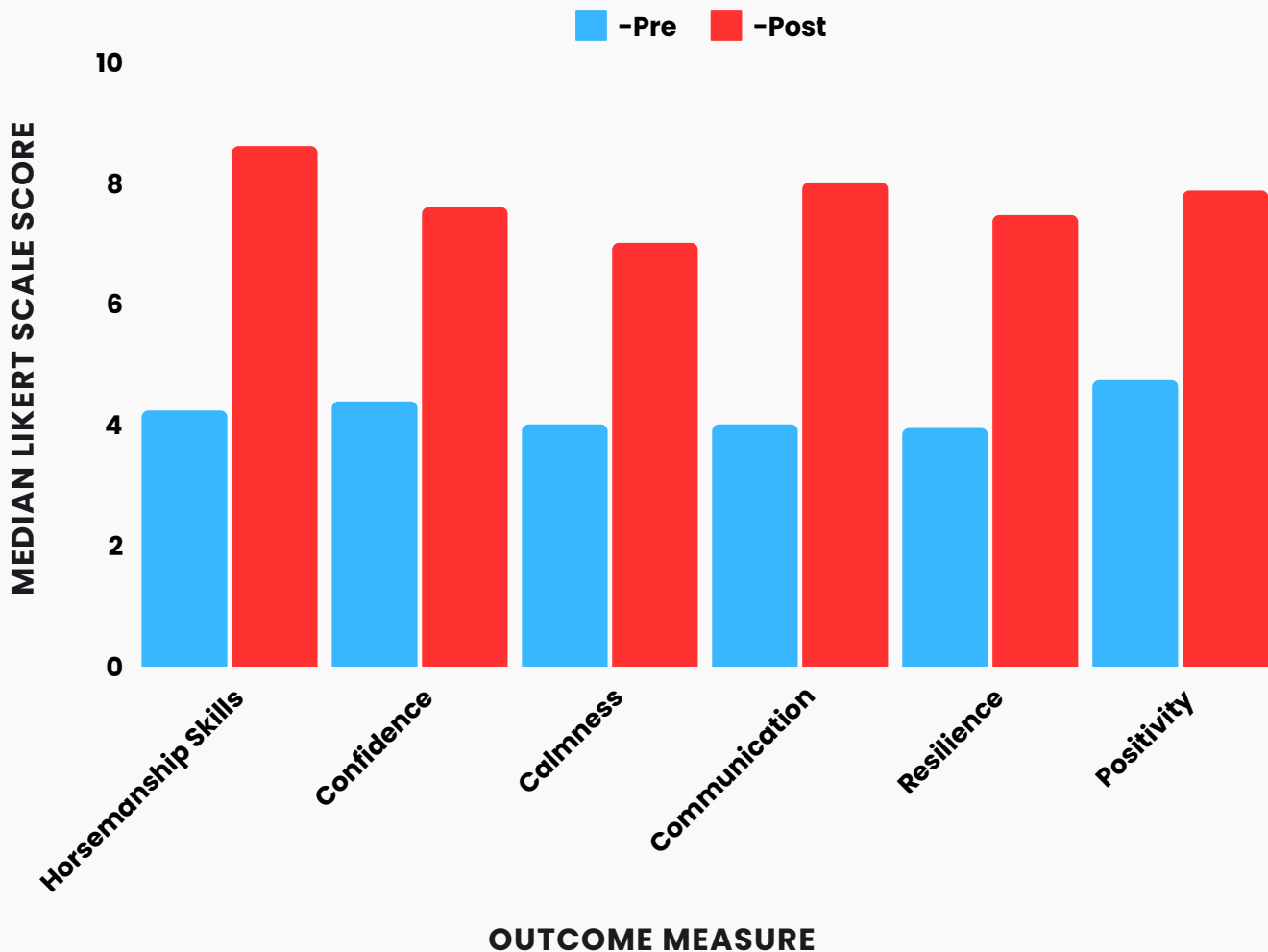
## QUANTITATIVE OUTCOMES:

Analysis of completed Likert scale self-report questionnaires.

### -PRE AND -POST QUESTIONNAIRES

1. My current horsemanship skills are...
2. I generally feel confident (i.e. trying challenging new things/meeting new people)
3. I am normally calm when things don't go my way
4. I am able to understand and communicate my feelings and emotions well
5. I am good at sticking at things I find difficult or challenging
6. I generally feel positive and happy about myself and my life

### WILCOXON SIGNED RANK TEST RESULTS FOR THE 6 MEASURES



The average increase across the six categories is approximately 4.07. This indicates that, on average, participants reported a **4.07 point** improvement in their scores for the evaluated skills and feelings (**40.7%**). Significance was determined at **<0.001** for all measures, meaning that there is a highly significant difference between the scores at the two time points (less than **0.1%** likelihood that the results are due to chance).

## QUALITATIVE OUTCOMES:

### DIFFERENCES BETWEEN SESSION TYPES

Question	Theme	$\chi^2 (1)$	P
Q1 - Has being with the horses at Sirona helped you in any way?	Self-Improvement	3.434	0.488
	Calmness	2.027	0.731
	Improved Mood	4.639	0.326
	Safety	1.155	0.885
	Positive Learning	4.393	0.355
Q2 - What have you taken into your life as a result of attending Sirona?	Self-Improvement	6.435	0.169
	Calmness	6.758	0.149
	Improved Mood	3.299	0.509
	Safety	0.7	0.951
	Positive Learning	4.228	0.376
Q3 - Has anything else at Sirona helped?	Social Relationships	2.948	0.566
	Self-Improvement	5.121	0.275
	Optimism	3.004	0.557
	Transferable Skills	4.746	0.314
	Animal Centred	1.284	0.864
Q4 - How could Sirona be better?	Social Relationships	5.848	0.211
	Urge to Continue	10.052	0.4
	No Improvements Necessary	2.955	0.565

Note: The theme 'safety' refers to the participant's sense of safety, support and security in their group sessions.

**There was no significant difference in the common themes found in the open-ended feedback forms across different session types. This is evidenced by all the p-values being above 0.05, meaning that any observed differences are likely due to chance. Therefore, all session types were equally effective.**



## QUALITATIVE ANALYSIS

In total, 132 open question feedback questionnaires were analysed. Results can be seen below:

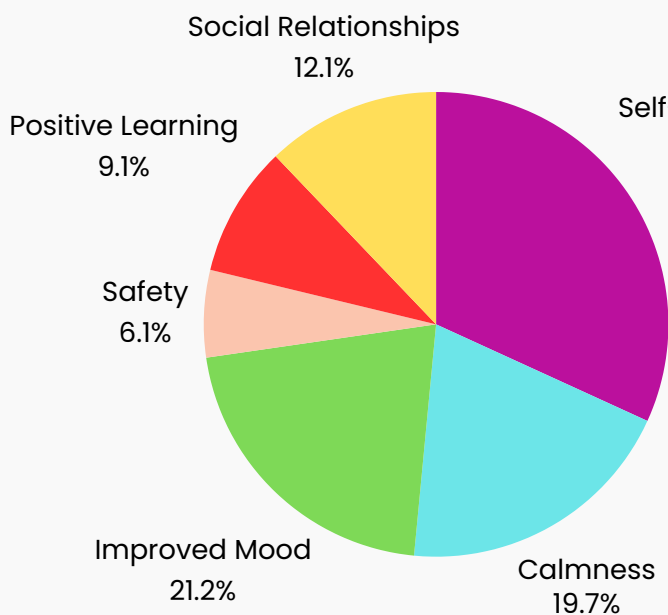
### QUESTIONNAIRE RESULTS

**73.1%**

of respondents reported that Sirona had helped them with

**IMPROVED MOOD**

### Q2 - What have you taken into your life as a result of attending Sirona?



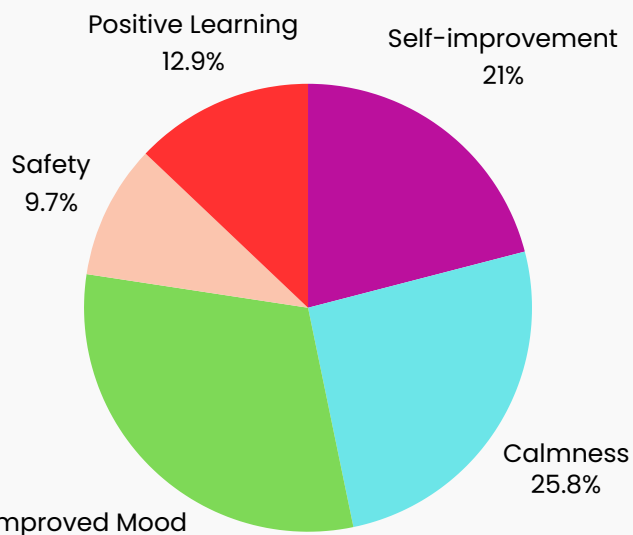
**80.8%**

of respondents reported having taken

**SELF-IMPROVEMENT**

into their lives having attended Sirona

### Q1 - Has being with the horses at Sirona helped you in any way?

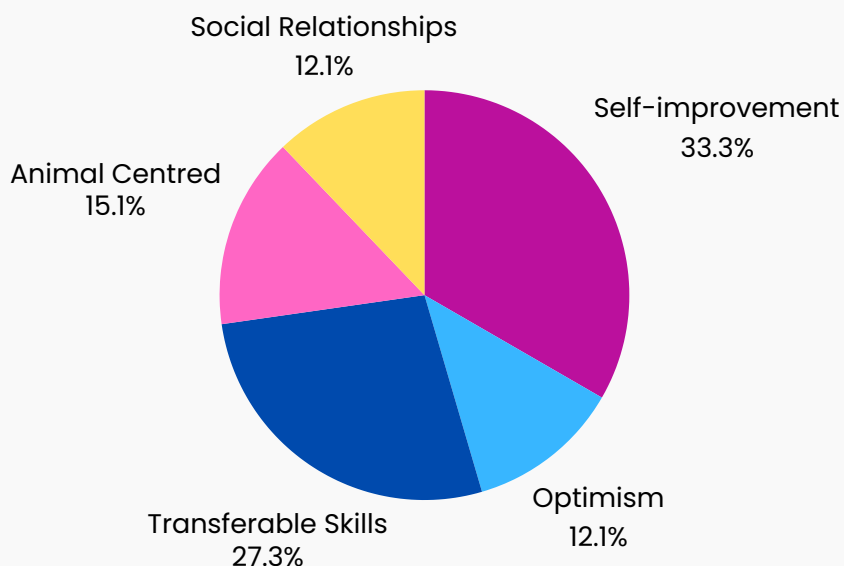


**61.5 %**

of respondents reported that Sirona had helped them with

**CALMNESS**

### Q3 - Has anything else at Sirona Helped?

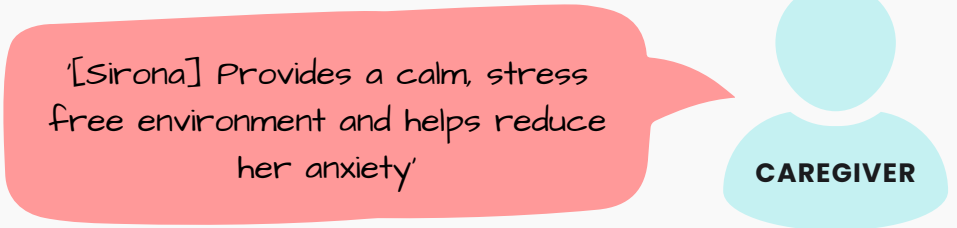


## QUALITATIVE FEEDBACK

The feedback we get from participants and their caregivers/referrers is just as valuable as our quantitative feedback as it provides the 'why' behind the change. Here are a few comments...



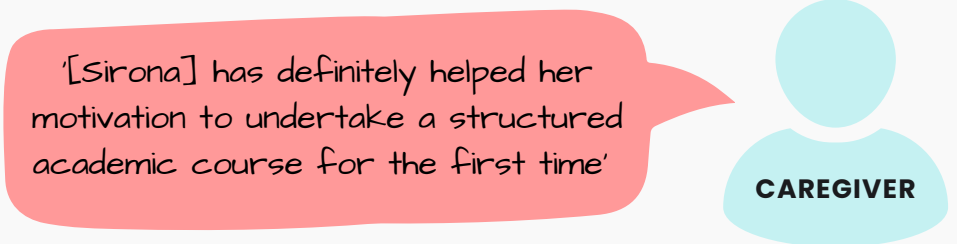
"It's [also] given me a sense of community. It is nice to be a part of something, especially something I am passionate about."



'[Sirona] Provides a calm, stress free environment and helps reduce her anxiety'



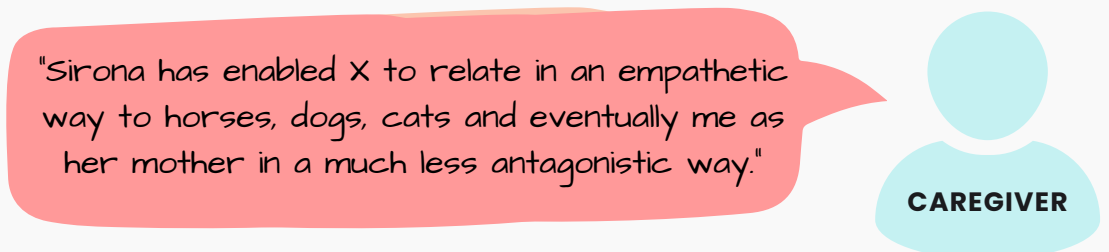
'[Sirona] has helped me to be mindful of my own needs and self-care and having the confidence to request help'



'[Sirona] has definitely helped her motivation to undertake a structured academic course for the first time'



"I love caring for them because it makes me feel more like caring for myself."



"Sirona has enabled X to relate in an empathetic way to horses, dogs, cats and eventually me as her mother in a much less antagonistic way."



'No matter my emotions, I can rely on the horses'



## SARAH (NAMES AND IDENTIFYING FEATURES CHANGED)

Sarah is a looked after child who was referred to Sirona due to **mental health issues** and being **unable to attend school** because of **extreme anxiety**. Sarah quickly settled in at the quiet, calm environment at Sirona and **built good relationships** with two of our little ponies, Lily and Molly, but was quite anxious around the larger ones initially. In the equine-assisted sessions Sarah learnt about **horse psychology**, focusing on non-verbal communication and learning to recognise body language and behaviour. She took part in horse care including mucking out, feeding, tack cleaning, leading the ponies for exercise and some basic horse training.



Other activities concentrated on activities to develop **psychological benefits** such as how horses use their senses to keep themselves safe and how our energy affects the horses. We practiced **breathing exercises** and our **equine-based mindfulness** with the horses (EBM) and did a sensory walk in the woods with the pony Molly.

Due to her **sensitivity** Sarah was able to be the **first participant** to work with our new pony Molly. This was good for Sarah's **self-esteem** and she seemed pleased with this. Molly and Sarah **developed a relationship** straight away and she came and stood next to Sarah when we went into the barn. She did some **liberty work** with her, setting up a small agility course in the barn. Molly followed her around, stopping and starting and moving with her, without the use of a headcollar; sometimes known as '**horse whispering**'. This liberty work when a horse chooses to move with you **of their own free will** can give a young person a special feeling of **being accepted and liked**. Often a **powerful experience for a young person with adverse childhood experiences or attachment issues**.

Sarah was also offered the opportunity to do some training with Molly. Initially Molly was a little reluctant about one of the exercises. When Sarah was asked what she thought Molly might be feeling, she replied that she thought Molly looked anxious. This initiated a **discussion on different stress responses** – fight, flight or freeze. Sarah said she **knew exactly how Molly felt** as she froze when she was very anxious. We talked about **what might help Molly** and what might help Sarah when this happened. After the block of sessions at Sirona Sarah was able to **attend our open day** and **took part in a demonstration** leading Molly around the agility course. There were a lot of people watching but Sarah remained calm throughout, using our **EBM breathing exercises** and this, in turn, supported Molly to feel calm. Following this Sarah commented that **Sirona really helped her to stay calm in challenging situations**.

**"Sirona has helped me – I feel happier around the horses. I am more confident and I have learned that even if I think I can't do something, having a go is the best thing to do".**

**"Being with the horses had made me feel calm and relaxed and makes me feel ready to learn. Knowing however bad it is it will get better with time and you just need to relax and take life in a stride and be calm."**

Following her block of sessions at Sirona Sarah was able to **return to school** and work towards her GCSE's. She told us that **her dream is to work with animals** and so Sarah will be **returning to Sirona to complete work experience** in the future to support her progress towards this.

This study set out to find out whether the equine-assisted therapy and learning programmes at Sirona Therapeutic Horsemanship CIO had a positive and beneficial effect on young people. The key findings included a **highly statistically significant increase in self-reporting scores assessing improvements in overall wellbeing from week 1 to week 12 of sessions**. This indicated participants felt their overall wellbeing had improved since attending the sessions and reflected positively on EAT/L as a process. The **qualitative data added an extra layer of detail to the findings, identifying the emergence of 11 key themes:** self improvement, calmness, improved mood, safety, positive learning, social relationships, optimism, transferable skills, animal centred, desire to continue and no improvements necessary.



## CLINICAL APPLICATION

This study supports the ever-growing body of evidence that suggests that EAT/L provisions are an **effective and beneficial intervention for a variety of outcomes**. As traditional mental health services continue to face **increasing demand** (NHS Digital, 2022), especially post-pandemic (Lua, Chua & Chia, 2023), EAT/L approaches could alleviate some of the pressure on **healthcare systems** by providing scalable, accessible solutions for outcomes such as confidence and resilience alongside other wellbeing measures. Moreover, understanding how equine and animal-assisted interactions impact different outcomes may guide practitioners in selecting the most appropriate treatment plan. Future research may look to include a longitudinal study over a longer period, with different types of animals, to better-comprehend the benefits of these interactions.