

The Hierarchy of Evidence and Equine Assisted Interventions... TheHorseCourse (THC)



2012

2015

2019

2020/21

Professor Ann Hemingway

1/9/2020

ahemingway@bournemouth.ac.uk

2012 - 15

Getting to know THC and working with them...planning around the hierarchy of evidence.

Completing first exploratory qualitative study using interviews and observation in the young offenders institution.

(Diagram adapted from the Cochrane Collaboration
https://rehabilitation.cochrane.org/sites/rehabilitation.cochrane.org/files/public/uploads/sosort_dubrovnik_-_cochrane_reviews.pdf

Hierarchy of Evidence



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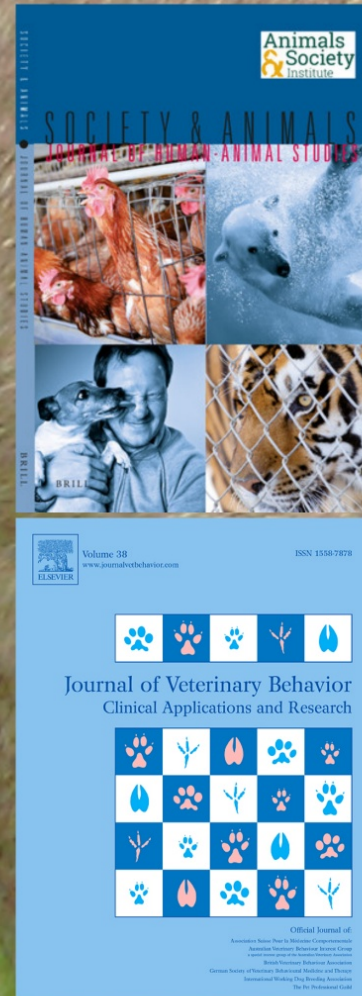
2015

Hemingway A., Meeks R. & Ellis-Hill C.
2015 An Exploration of an Equine-Facilitated Learning Intervention with Young Offenders

Society & Animals Volume 23: Issue 6,
544–568

DOI: <https://doi.org/10.1163/15685306-12341382>
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North, S., Hemingway, A., Maclean, A., Laurie, H. and Ellis-Hill, C., 2016. Evaluating a natural horsemanship program in relation to the ISES first principles of horse training. *Journal of Veterinary Behavior Clinical Applications and Research*, 15 (September/October), 87.



What we found...

*Hierarchy of Evidence Stage - 'Qualitative studies using interviews and observation'

What we found...

"Through working in a way with the facilitator and the horse which was action-based, experiential, with a non-judgemental approach the young offenders who usually find it difficult to engage; were observed to move from appearing anxious, tense and ineffective to being calm, assertive and confident when working with the horses. They reported feeling more confident and more in control of situations away from the horses. This short intervention appeared to have a deep effect on them"

"12 month reoffending rates were found to have reduced by 27 % compared with the Offender Group Reconviction Scale prediction for the study group (n=25). This is a small group, but the results were statistically significant (The Horse Course Evidence Review, 2015)"

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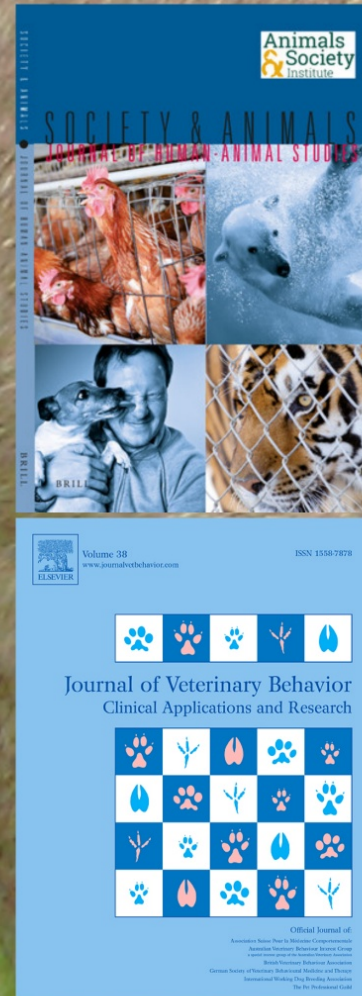
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2017-19

Analysing the routinely collected anonymised data from THC for young people.

Mechanism of action study to try to ascertain how THC is producing its impact.

* Hierarchy of Evidence Stage - 'Before and after measures non-validated tool'

Hemingway, A. A Study Exploring the Implementation of an Equine Assisted Intervention for Young People with Mental Health and Behavioural Issues. *J* 2019, 2, 236-246.



Hemingway, A.; Carter, S.; Callaway, A.; Kavanagh, E.; Ellis, S. An Exploration of the Mechanism of Action of an Equine-Assisted Intervention. *Animals* 2019, 9, 303.



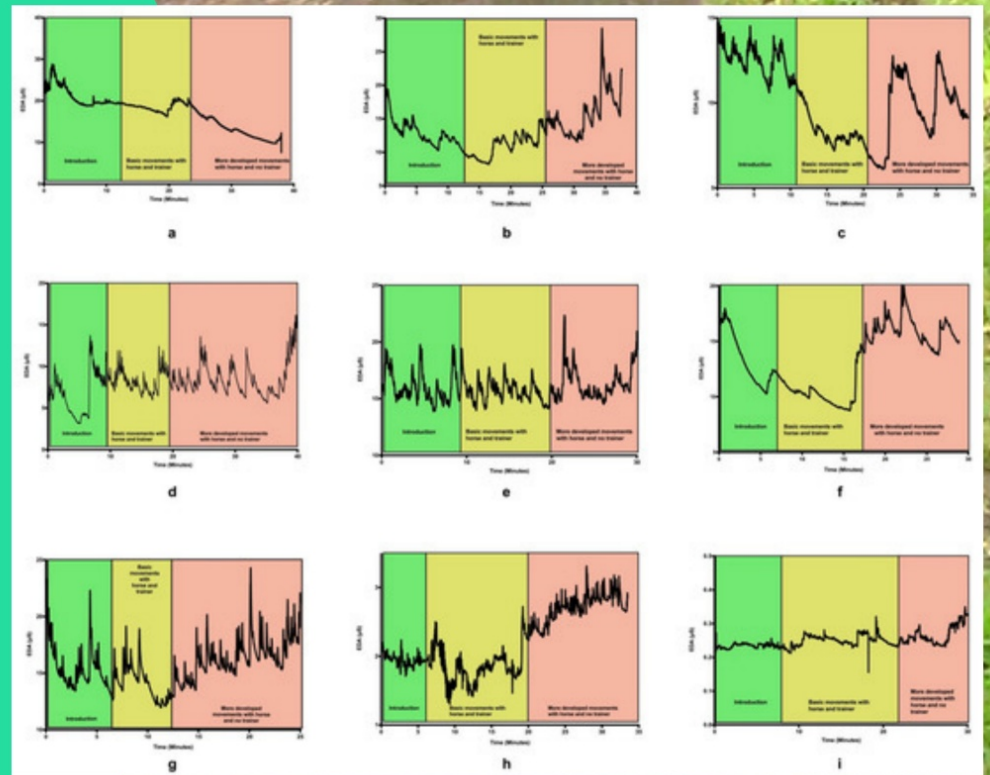
What we found

What we found!!

More of what we found...

"We contend that natural horsemanship may be operating at an embodied, emotional level, that is, that the learning could be embodied, and emotion led to aid learning and behaviour change. The young people responded emotionally to the presence and responses of the horse, and as they are coached to success repeatedly, that positive emotional landscape was rehearsed and reproduced from 100–200 times on average for an individual referred to the course (calculated estimate based on the participants thirty five minute experiences). These positive embodied emotional responses then generalise to everyday life, through dealing with emotional arousal as it occurs, thereby creating the mechanism of action."

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More of what we found...

Star Chart Skills	Number of Participants with a Positive Score Change	Number of Participants with a Negative Score Change	Number of Participants with No Score Change	Total Number of Scores in Analysis for Each Skill
Positive Negative and No Change Scores for all Participants (p <0.001).				
Realistic Planning	105	15	33	153
Assertiveness	107	12	35	154
Communication	102	25	27	154
Calmness	111	15	28	154
Engagement (as a learner)	103	13	38	154
Focus and Perseverance	100	9	45	154
Empathy	99	19	36	154

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What we found

What we found!!

More of what we found...

TheHorseCourse 'ReStart' – examination of an initial data set

Presented at The Royal College of Psychiatrists Faculty of General Adult Psychiatry Annual Conference 2018



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Consultant Psychiatrist,
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AIMS AND HYPOTHESIS

Large numbers of people with non-psychotic mental health problems have little benefit from usual interventions. We present initial, uncontrolled data on the efficacy of an equine-assisted programme across a number of domains for people with a range of psychological and behavioural problems who have had no or inadequate benefit from traditional approaches.

BACKGROUND

TheHorseCourse ReStart is an equine-assisted one-to-one intensive 5-day programme aimed at improving skills related to personal functioning in hard to reach or treat individuals with emotional or behavioural difficulties. It is offered by TheHorseCourse, a registered charity based in Weymouth. Referrals to the programme come from CAMHS, adult mental health services, schools & PRUs, YOTs, Children's Services (EIS to LAC), D&A treatment agencies and domestic abuse support specialists. The study group was characterised by high resistance to usual treatments, as determined by the referring agency.

METHODS

Data was collected on all 126 people referred to TheHorseCourse in 2014-2016 using TheHorseCourse Skills Star tool. This is an 8 dimensional tool measuring various aspects of self-efficacy and sense of personal agency, assessed by the referring professional.

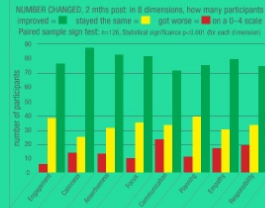
This paper presents outline analysis of data collected pre- and 2 months post-intervention. This population has a high degree of heterogeneity with regard to age (8 to adult) and identified problem. The intervention and assessment are deliberately not diagnosis focused. Analysis was carried out by Bournemouth University.

RESULTS

Improvement was recorded in 81% of participants, deterioration in 13% and minimal change in 6%: the average positive shift was +10.4 points for those that improved, on a scale of 0-32. Results per dimension are shown in the figures above. Statistically significant results ($p=0.001$).

CONCLUSIONS

The evidence to date for the effectiveness of this intervention is striking and the potential benefits are so important that an RCT or other large scale controlled evaluation is clearly appropriate.



<http://eprints.bournemouth.ac.uk/31367/1/RCPsychPoster.pdf>

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Case
Control
Cohort
Study
Findings

Submitting case control cohort study for publication presenting findings on THC's impact on reducing domestic violence and reducing the number of children considered by social services to be a 'child in need' with Kezia Sullivan.

Impact case study submission to Research Excellence Framework in 2021
<http://eprints.bournemouth.ac.uk/34294/1/RESEARCH%20OUTREACH%201.pdf>

More work on the mechanism of action...

Planning the Randomised Study...

Hierarchy of Evidence

Randomised
Controlled
Trial

*Case control cohort
study

Before and after measures
non- validated tool

Qualitative studies - interviews/
observation

Expert opinion, internal evaluation,
case studies

Questions...

Any questions?

What research
are you doing?

Challenges of
researching equine
assisted
interventions?



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Expert opinion, internal evaluation,
case studies

Questions...

Unpublished findings....

Although this is a convenience sample of participants from the troubled families cohort in this area, the numbers are large enough to see significant positive differences in two areas domestic violence and child in need. In addition those families with a member who attended THC tended to have more extreme issues on referral thus also further highlighting the impact of the intervention on this highly vulnerable group of individuals and families over time. THC is generally referred individuals and families when other options such as talking therapies and educational opportunities are not working or have not been attended. The findings in this study would support that this intervention appears to be effective with those with multiple problems.

2020

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