



HETI 2018

The 16th International Congress of Equine Facilitated
Programmes

Book of Abstracts



User Experiences



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Rachel Doak User Experience

Rachel Doak

Rachel has been taking therapeutic riding lessons since she was 2 years of age. In addition, Rachel has competed in the local Horse and District Show and has been the recipient of many rosettes. Rachel's presentation will focus on her experiences of therapeutic riding over the past 7 years and the areas that she most enjoys



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Rory Finnegan User Experience

Rory Finnegan¹

¹Festina Lente, Bray, Ireland

Rory joined Festina Lente in 2010, initially starting in a 3 year pre vocational training programme before progressing to a 3-year Equestrian Training Programme. Rory has been working with the Festina Lente Equestrian Center since 2016. Rory's presentation will focus on his experiences in training and his current employment



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Adam Farrelly User Experience

Adam Farrelly

Adam has been involved with horses since he was 5 years of age. He first started in the Supported Helpers Programme and therapeutic riding. More recently Adam is a mainstream helper and is involved in regular riding lessons and vaulting. Adam has also competed at the local Horse and District Show and always leaves with a rosette. Adams presentation will focus on his progression over the past 6 years.



Theme 1 – Attention Deficit Hyperactivity Disorder



The use of the Alert Program concept in the riding therapy

Dr. Kinga Wagner¹

¹Hungarian Riding For The Disabled Federation, Mosonmagyaróvár, Hungary

The use of the Alert Program concept in the riding therapy

The „Alert Program for Self-regulation” had been founded by two american occupational therapists: Mary Sue Williams and Sherry Shellenberger. The primary focus of the program is to help children to monitor, maintain, and change their level of alertness so that it is appropriate to a situation task. At the original program they use the analogy of automobile engine levels. The two authors encourage the leaders to adapt the concept of the program to different community settings.

As riding therapist I found that the analogy of automobile engine can be well adopt to the equestrian environment. So I modified it as an equine assisted learning program using the analogy of horses’ behavior. I would like to talk about the basic concept of the modified Alert Program and show how to fit it to a five days long summer camp or a one year long therapeutic riding program.

My objective was to demonstrate that the relationships with the horse during riding therapy are an emotional surplus, with those in the field being more motivated to solve the problem. In the equestrian environment the social skills of children are developing, and those who have received therapy can find their place better in the classroom. Eight children with learning difficulties and ADHD between 9-13 years had riding therapy lesson once a week one school year long, their controlled pairs who were their class mates hadn’t got riding therapy at all. We used Children Behavior Check List (T.Achenbech: Teacher’s Report Form (1991)) and Executive skills in children and adolescents. (Dawson and Guare (2010)). These questionnaires were filled by their teachers before and after the school year.

With the modified Alert Program we were able to make the students understand the theory of arousal states, it was easy to teach them to monitor, maintain and change their level of alertness not only at the riding school but in the classroom and at home too. The key of their heart and mind was the connection to the life of horses and to the equestrian environment.



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Equine Assisted Therapy and Attention Deficit Hyperactivity Disorder - A study case

Ms Joana Figueiredo Gonçalves¹, Ms Ana Rodrigues², Ms Cláudia Almeida³

¹*Academia Equestre João Cardiga, Oeiras, Portugal*, ²*Faculdade De Motricidade Humana - Universidade de Lisboa, Lisboa, Portugal*, ³*Academia Equestre João Cardiga, Oeiras, Portugal*

Despite being a concept with little defined boundaries, Equine Assisted Therapy can be understood as a therapeutic and educational method, using the equine as an interdisciplinary approach in health, education and equitation fields to promote biopsychosocial development of people with special needs. Research in this topic is very scarce and inconsistent, specially with children affected by Neurodevelopmental Disorders (ND).

Attention Deficit Hyperactivity Disorder (ADHD) is a ND revealed by symptoms of inattention, impulsivity and hyperactivity with atypical frequency, intensity and duration, considering subject's age. It impacts development and learning in various domains and ADHD is now recognized as a biological disorder. Thus, ADHD is associated to dysfunctions in cerebral braining, related to Executive Functioning/Attention, Behavioral and Emotional Regulation.

The purpose of this work is to analyze the effects of Equine Assisted Therapy in a boy with ADHD (Combined Presentation), aged 11. In the first assessment we used Behavior Rating Inventory of Executive Function, Cognitive Assessment System and instruments of direct behavior observation in sessions. After 11 months of intervention we conducted a new assessment and important behavior modifications occurred, according to direct measures and teacher and parents' reports.



Theme 2 – Attention Deficit Disorder



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Rajzoló/ Horse-drawer

Ms Darinka Király¹

¹*Therapeutic Riding Association In Hungary, Mosonmagyaróvár, Hungary*

Background: In the last 5 years we had started a project, an experience to combine Equine Assisted Activities with art therapy under the ALERT program. This summer camp were supported by MOL Talent Support. The project were created by Dr. Wagner Kinga Therapist of Equine-assisted Therapy and Király Darinka Hippo therapist and Art therapist.

Aim and objectives: The Alert Program assists students in understanding the basic theory of sensory integration related to arousal states. The primary focus is to help children learn to monitor, maintain, and change their level of alertness so that it is appropriate to a situation or task. This program is intended to be utilised in conjunction with other therapies as deemed appropriate. We would like to expand this correlation of therapies with art therapy in case of the visual input. In the art therapy is the curative power shown by the act of art, the creative process is primary. The art therapy is the way of nonverbal expression of inner spiritual content with the tools of art. The complete product is a complex system. The emotions, the feelings are transmitted to the figures which were created, so thus the internal anxiety going to be reduced, the psychical stress, and cramp going to be dissolved.

The participants were chosen by the diagnostic attention deficit disorder or hyperactive disorder under school kids at the age between 8 and 12 years.

Design: Programme Evaluation

Methods and potential measures: we used primary the methods of the art therapy, techniques like drawing, and painting, sculpturing, mixed techniques. The occasions were practiced before the riding, after the riding and while riding. The measures were made primary with verbal reflections, and worksheet.

Data analysis methods: An other way to measure the effects or analyse the works is to use the SSCA method: a system analysis approach dedicated to Dr. Vass Zoltán psychologist.

Outcome/Results: During the experiment we could actually managed to find a connection through the Alert Program between Equine-assisted Therapy and Art Therapy. The opportunity of an Equine-assisted Art therapy became imaginable.



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How does a psychomotor therapist brings value to the table?

Ms Joana Figueiredo Gonçalves¹, Ms Ana Rodrigues²

¹*Academia Equestre João Cardiga, Oeiras, Portugal*, ²*Faculdade De Motricidade Humana - Universidade de Lisboa, Lisboa, Portugal*

Psychomotor therapists' participation in Equine Assisted Therapy (EAT) goes back to this stage's conceptualization. As a therapeutic agent in EAT, the psychomotor therapist is responsible for assessing, decision-making and interventions' planning, where the animal (equine) represents a contribution with distinct therapeutic value for each client. At a time when opportunities of professional integration are increasing, in teams working on this sector, it is urgent to raise awareness about psychomotor therapists' role. In psychomotricity we work with body to enhance physical, emotional and cognitive performance. This communication aims to present a theoretical proposal of integration of psychomotor tools/techniques when working on EAT: such as play, movement, relaxation and expressive techniques. Furthermore, it is important to note that psychomotor therapists work based on the understanding of endophenotypes and also accounting for the way clients and people within the child's environment, in their contexts (e.g. home, school), may minimize the symptoms' impact and hopefully facilitate adaptation. This exposure will be particularly directed to interventions in the field of Neurodevelopmental Disorders (e.g. Attention Deficit Hyperactivity Disorder, Autism Spectrum Disorder).



Theme 3 – Autism



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Mounted or unmounted? ... or both?: Equine therapy and ASD

Dr Maggie Broom^{1,2}

¹*Grey Horse Growth And Learning, Melbourne, Australia,* ²*Riding for the Disabled Victoria, St Andrews Centre, Smiths Gully, Australai*

The range of behaviours seen in people on the autism spectrum reflects a huge variety of needs. From simple social awkwardness through to incapacitating sensory issues and inability to communicate, autism behaviours arise from profound distress. Working with horses can address many if not most of these needs, avoiding, paradoxically, a 'one-size-fits-all' therapeutic approach. With its flexibility, equine work provides opportunities to address physical, social and emotional skills all in one package. This paper draws on case studies to demonstrate how the extremes of autism can be approached through work with horses, making a case for mixed equine modalities as a favoured approach to meeting the needs of young people with autism.

Three main equine modalities will be explored through case studies in this paper: mounted work; unmounted work (horse on a lead rope), unmounted work (horse at liberty). Under each heading there is a variety of ways to achieve therapeutic benefit. Equine therapists know that mounted work does not just mean 'riding'; unmounted work does not just mean 'brushing'; liberty work does not just mean 'chasing'.

The ability to draw on different aspects of equine work gives practitioners opportunities to offer tailored sessions to individuals. It does require an extended knowledge of different equine therapeutic techniques, safe and competent horse handling skills and an ability to blur the boundaries between modalities. But it also increases the efficacy of physiotherapy, occupational therapy, psychotherapy, emotional regulation and social skills development for those who need every chance to experience life without distress.



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The effectiveness of implementing Equine-based interventions to improve the social and communication skills deficits of young people with an ASD

Miss Amelia Plisner¹

¹*The Fortune Centre of Riding Therapy , ,*

Background:

ASD affects 1 in 100 people living in the United Kingdom and 1 in 100 people living in the United States (The National Autistic Society 2016) and (CDC 2016). Due to this prevalence, there is a need for development and research into the validity of alternative interventions. A significant example is the use of Equine-based interventions to improve the symptoms of young people diagnosed with an ASD.

Study aim and objectives:

The aim of the study was to explore the effectiveness of Equine-based interventions in improving the social and communication skills deficits of children and adolescents with autism. The objectives were as follows:

1. To identify and define the different types of Equine-based interventions for children and adolescents diagnosed with an ASD.
2. To examine whether certain Equine-based interventions are more effective than others in improving the social skills and communication skills deficits in children and adolescents with autism.
3. To consider the implications and relevance of Equine-based interventions for occupational therapy practice.

Study design:

Quantitative systematic literature review

Study population and sampling:

Children and Adolescents aged 0-18 diagnosed with an Autism Spectrum Disorder.

Data collection methods:

A literature search was conducted utilising a combination of electronic databases and relevant journals. Data extraction then took place, followed by critical appraisal.



Data analysis methods:
Narrative Synthesis

Duration:
6 months

Results:
6 studies indicated that there is potential effectiveness in implementing Equine-based interventions to improve the social and communication skills of young people with an ASD. Also the factor of time, may impact Equine-based intervention effectivity. However, these findings are limited by methodological weaknesses such as small sample size.

Conclusions:
This review indicates that Equine-based interventions have positive effects on the social and communication skills deficits of children and adolescents with an ASD. The extent of these effects is unknown. In order to evidence this effectiveness further, studies should focus on standardisation of Equine-based interventions and utilise larger sample sizes.



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Equine Assisted therapy promote visual processing and intelligent thinking in adolescence with autism

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This current study aims to apply equine assisted therapy (EAT) to promote visual processing, attention, inhibitory control and cognitive flexibility in adolescence with autism

Participant of this program has consent to participate in this program for 4 weeks, twice session a week by 45 minutes in each session

ABA method has been applied for assessment as baseline, mid and the end of program. Visual motor integration (VMI, Beery VMI 6th edition) and Task of executive control (TEC) were applied to investigate visual processing and executive function, respectively

Descriptive statistic was also considered for demographic and participant background

The outcome of this study represents the delightful of EAT is not only an efficient therapeutic tool for improving visual processing and cognitive flexibility but also promote positive effect on social communication, planning-organization, and self confidence

In conclusion, EAT showed positive effect and suggest to consider as an alternative treatment for adolescence with autism



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Equine Therapies for Children with Autism: Evidence-based, or simply 'feel good' practices?

Ms Cathy Binz¹

¹*Equestrian Australia, Brisbane, Australia*

Determining whether Equine Therapies for Children with Autism Spectrum Disorder can be considered Evidence-Based.

Equine Facilitated Programmes (EFP) for children with Autism Spectrum Disorder (ASD) have become hugely popular with the number of children enrolled in such programmes skyrocketing in the over the last decade, fuelled by media hype over stories and films such as *The Horse Boy*. Along with the uptake has been a corresponding surge in research worldwide examining the purported effects.

Anecdotal evidence notwithstanding, ultimately, the gold standard for therapeutic interventions are those deemed to be evidence-based practices. This talk examines the empirical research on EFP for ASD using the evaluative method created by Brian Reichow et al (2008) which provides an algorithm for evaluating intervention research with the goal of identifying practices that could be considered evidence-based practices for children with ASD. Thirty scientific studies published in peer-reviewed journals qualified for inclusion in this review. Methodology and protocols were highly variable across the studies with most failing to meet at least one of the standards required in the first two rubrics of the Reichow Evaluative Method: research report rigour and research report strength. This review demonstrates that, despite the proliferation of research investigating EFP for ASD, there is not yet enough high quality research to justify the labelling of EFP as an evidence-based practice for children with autism. Of those studies which did meet the criteria for research report vigour and strength, were three studies which focused primarily on recording physiological changes in children with ASD participating in EFP.



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Ben - A Case Study. Balancing skills for life with horses and riding.

Ms Mary Longden^{1,2}, Mrs Kathy Angel²

¹Joan Tonge Therapeutic Riding Association, Tooraddin, Australia, ²Riding for Disabled Association of Australia, Adelaide, Australia

Ben started riding 2 years ago when he was 7. He has been diagnosed with autism, ADHD and an intellectual disability. When he was adopted at 2 he could not sit up. Both his biological parents suffer from an intellectual disability. He now walks and runs. In December 2016 he completed the Wechsler Intelligence Scale for Children-V (WISC-V), and the Wechsler Individual Achievement Test 2nd Edition. All his results were in the 'extremely low' range. This was not helped by standing on the chair and kneeling on the desk during the testing process.

School was not a success for Ben. He did not relate to other children or follow instructions from the teacher. He was highly stressed by the experience and in the end was home schooled.

After starting in the local RDA Centre he then attended The Riding Patch riding school in Strathalbyn, South Australia several times a week. His riding program incorporates reading, mathematics, social skills, and developing his working memory. At this time he is able to follow up to 6 instructions at a time which he reads from a white board in the arena. Cantering is his main reward. After learning about money by buying his canters he can now use money to buy food and drink.

Kathy Angel works closely with both Ben's clinical psychologist and speech therapist. They have both been surprised at Ben's compliance, concentration and confidence which are rarely present when they see him. The riding program includes looking after horses as well as riding. He spends several hours a week at the riding school which gives his mother respite. He is now coping with attending school two hours a day twice a week where he does reading and writing is a special class.

This oral presentation includes video footage of his progress during the last two years and reports from his therapists. Mary Longden works with Ben and Kathy Angel 4 times a year and helps to assess his progress and plan the next aims and goals. Ben is hopefully striking the balance between coping with life and enjoying horses.



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Pilot study: definition of a video recording protocol to monitor Equine Assisted Therapy in patients with Autistic Spectrum Disorder (ASD)

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Background and statement of problem

An appropriate assessment of rehabilitation programs is a primary moment to ensure treatment efficacy (Developmental medicine & child neurology 2008; Paidéia 2015, Vol. 25)

Standard video recording with encoding of data, is a prominent assessment measure of clinical usefulness to define and for monitoring individualized therapeutic programs (GIPCI, E. Fedrizzi Franco Angeli 2005)

The use of serious video recordings (in fore-coming times), compared to other tool assessments (Vineland Adaptive Behavior Scales-VABS), it is a important tool for the individual's follow-up, to evaluate the changes and to verify the effectiveness of the rehabilitation.

There haven't been any registred video recordings for Equine Assisted Therapy(EAT) in the literature; therefore our medical rehabilitation team made a study to develop a specific protocol of video recording (VRP)

Study aim and objectives

The purpose of the study is:

- to define a standard VRP for the assessment and monitoring EAT in autistic children;
- to evaluate the efficacy of the VRP; test the psychometric characteristics of a specific VRP correlating with the VABS, one of the most widely used tools to assess adaptive abilities.

Study population and sampling

15 children with ASD (13 boys, 2 girls); average age 8,6; medium severity level (evaluated by Childhood Autism Rating Scale)



Data collection methods and measures

- developing of VRP (composed by ten standard sessions to measure the domains of social communication and social interaction)
- developed an annotation protocol for the analysis of video recordings, divided in six domains (26 item with likert score)
- patient selection
- to T0 and T1 patient were evaluated by the VRP and by the VABS
- To assess the reliability and validity of the protocol a statistical analysis was conducted to verify possible correlations between VRP and VABS

Data analysis methods

statistical ranks

Duration of study

40 sessions, lasted ten months

Outcome/Results

After a preliminary study the VRP proved to be a reliable psychometric tool and a positive correlation has indeed emerged between VRP's and VABS's general scores.

The use of VRP to monitor EAT in patients with ASD has been encouraging so far.



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Ontology and dilemmas when taking care of an autistic person with horses, an anthropological study

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¹Laboratoire Acté Université Clermont Auvergne, Clermont-ferrand, France, ²Institut Français du Cheval (IFCE), Paris, France, ³Fédération Nationale de Thérapie Avec le Cheval (FENTAC), Paris, France

Pet Therapy, Animal Facilitated Therapy, Animal Assisted Activity... The terms used since 1962 reveal the diversity of practices and the difficulty to define simply what's behind these terms. Taking care of someone with a horse, what does it mean?

Autism brings us to look at the world a different way and question our relationships with others. How do we consider the persons in front of us? How do we interact with them?

In this study, we were interested in understanding how professionals take care of autistic people with horses. From theory to field, we underline the importance of understanding the profession through concrete situations.

We focused on singular caring practices moments through a qualitative study.

We observed and interviewed four professionals from fentac, three professionals from different backgrounds and a group of professionals working together with plow horses with a group of autistic teenagers. From the horse riding center to the day hospital, the distinctive features are important as well as the distinctive characteristics of each professional.

The researcher was a participant observer during the sessions. The main method used to describe the session was "auto-explicitation". Pierre Vermersch developed a method of interview to get to the experience of a person focusing on a moment. "auto-explicitation" is a way to go back to my own experience. "L'entretien d'explicitation" was then used for interviewing the professionals about their own experience during the session.

From January 2016 to June 2017

The study points up the tensions between different norms during the activity. When asked about their practice, the professionals emphasize a strong relational ontology : it's essential to consider the other (the patient, the horse) as an individual with its own coherence. This ontological norm holds their practice, but face other norms during the session that sometimes take over. The dilemmas are inevitable: everyone is confronted to them but deal with them differently. These dilemmas question the profession. This moment of balance between ontology and social norms is crucial to understand the practice and define a profession. This study focused on sessions with autistic children and could extend questions to other particularities.



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Equine-Assisted Therapy - A Multidimensional Intervention Tool For Individuals With Autism Spectrum Disorder

Mrs Dimitra Karouzaki¹, Mrs Martina Schlicht¹

¹*Therapeutic Riding Association Of Greece (trag), Athens, Greece*

Research on the broader field of Equine-Assisted Therapy (EAT) in the autism spectrum is still in its infancy with little documented empirical evidence. Within this context, the present study tries to fill some gaps and aims to investigate whether benefits of EAT sessions found in previous studies are obvious to parents of individuals with ASD and to what extent they can be confirmed. It was hypothesised that EAT as a complementary treatment tool included in the routine of activities of individuals with ASD has positive effects on psychomotor skills, sensory integration, socio-cognitive functioning and emotions. A total of 25 parents took part in the study conducted at the Therapeutic Riding Association of Greece (TRAG) between mid December 2016 and mid February 2017. The analysis of the research data confirmed significant psychomotor and sensorimotor benefits, as well as improvements in social and communication skills and general well-being. Parents confirmed that first positive changes were evident as early as two to three months after the beginning of EAT. The most striking feature though is that EAT seems to provide support of some kind to all the participants, regardless of their age, gender, duration of attendance or diagnosis of the autism spectrum. Nevertheless, the successfulness of equine-assisted interventions in the autism spectrum seems to stand in close correlation to the severity of ASD symptoms and the duration of continuous EAT sessions.



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HAPPY TRACKERS! – Successful Tracking an autistic group of children leads to good Team Work

Mrs M.J. (Jenny) Collings¹

¹*Cprth and Rda, Salisbury, Wilts, United Kingdom*

Before 2013 there was no way of recording change in riders at RDA. Although riders might ride the same equine, they did not necessarily have the same leader or side walker on each ride. The ride might be fun, but did not necessarily have an objective. The Tracker was introduced to RDA Groups after a pilot study in 2012. Having appreciated the positive aspects of the scheme after involvement in the Pilot Study, the honorary Physiotherapist at Wilton RDA offered to help introduce the scheme to the Group.

Study aim and objectives

The aim of the study was to assess the value of the ride by introducing a method of recording change in the riders.

Study design

The Tracker, a tool with graduated outcome measures devised by RDA to measure change in six different areas through RDA activities was used. Two established riding groups with different instructors were invited to participate. A scribe oversaw the recording of two assessments, at the beginning and end of the study period, which were carried out by the Instructor and Teachers. Their agreed scores were fed into the Tracker system. The Physiotherapist assisted the activity and supported the Instructors and scribe as required.

Study population and sampling

The two groups chosen had 5 children in each and were of similar ages. The 30 volunteers, 2 instructors and 2 scribes were established and worked at Wilton RDA on the days chosen. One group withdrew.

Data collection methods and measures

The Scribe liaised with the teachers and Instructor to record their initial subjective assessments of the 6 measures. After the study period the process of recording was repeated without access to the original assessment, but included the riding team observations. The results were fed into the Tracker System.

Data analysis methods

The Tracker System, which included a range of +/- criteria for each of the 6 measures. The numbers involved were too few to involve Statistical Analysis.



Duration of study
Three months.

Outcome/Results

Although a subjective measure, the Tracker provides a measure of change. An unexpected outcome was improved team dynamics.



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Horse riding benefits for people of autistic spectrum

Ms. Cynthia Escalante¹

¹*Jaqueline Ochoa Clark, Navojoa, Mexico*

Introduction: Autistic Spectrum disorder is a development disorder characterized by compromise in social interaction, language abilities and certain motor dysfunction. An increase of scientific and animal assisted therapy literature has been evidenced, showing improvements in autistic patients with equine therapy.

Objective: to make a thorough analysis to prove effectiveness of equine therapy in socio-communicative and motor abilities in my daughters.

Methodology: the applied methodology is based in the following techniques implied during their equine therapy sessions: 1. Scerts Model. 2. Gronar Concept "Equitation and Health" from Edith Gross Naschert. 3. "Techniques and Theoretical basis", Juan Vives Villarroig.

Results: work through equine therapy has shown benefits in overall improvement in my daughters, life quality, taking equine therapy has a complementary tool in the therapies they have received.

Conclusion: equine therapy is promising in autistic spectrum children management, which is clearly proved by my daughters with great improvements in motor, social, language and psychological skills.

The results of the work done from my own experience are very satisfactory during the process with my 2 daughters in autistic spectrum, manifested in posture improvement, spatial location, balance and coordination, social adaptation, environmental adaptation, fear management, higher level of concentration and language.

Overall: contributions in psychoemotional, physical and social well-being.



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Summary 1 : structuring and assessment in ponies sessions with therapeutic aim.

Madame Rapenne Marie Paule¹, Delphine Rapenne

¹*Author, Vandoeuvre Les Nancy, France*

Since 1981, the children psychiatric hospital “Centre Psychothérapique de NANCY”, purpose therapeutic work with ponies and horses, in a riding school. Now, children are younger, with stronger pathologies. Autism children are also inside these groups. We have also changed riding school. Children come with medical prescription. We specify the therapeutic aims and how to work on them. We organize each session according to these therapeutic aims: we structure the environment, and all variations: grooming and pony’s preparation, time on the pony, and “on foot”, to change work on the pony: to ride bareback, with a saddle, surcingle, “jumping”, to ride another pony, to use Pony Games material.... Each session is registered in medical file, with team analysis and project for the next session: how to stabilize knowledge and to pursue progress? Every 6 months, a synthesis meeting gather all professional team, and we create new aims for each child. Our aims are often to create pleasure, appeasement, the desire to do something, or to be with somebody or with some animal; these aims are to make easier access to knowledge, to more language, to a better relation to others... and this has to reduce symptoms and to get a better social integration. The more significant points for us? To insure protection, organizing timing: we don’t teach “how to ride”, so if it’s necessary, we work during all the session, in the stables or with free ponies, without riding. All year long, we change our responses if it’s behavioral or mental problems. A psychiatric emergency department (CHU= University Hospital Center) asked us to create a specific group : since October 2017, each week, different children come in riding school and we structure the session on 3 parts: writing time, grooming work, riding time, with 2 or 3 different children and nurses. Here is an example of this new construction...



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The Development of a Unique Multidisciplinary Service Combining Occupational Therapy with Existing Equine Therapeutic Practices, showing improved outcomes in children between 2 and 18 years of age with a diagnosis of Autism Spectrum Disorder

Ms Terri Brosnan¹, Ms Audrey Darby¹

¹*ChildVision National Education Centre for Blind Children, Dublin, Ireland*

Background and statement of problem

There are a number of studies that highlight the benefit of using horses to meet therapeutic goals in the population of children with Autism Spectrum Disorder (ASD)(1,2,3) . Occupational Therapists are involved in the diagnosis and support of children with ASD to reach their functional potential. At Childvision, we are developing a unique multidisciplinary service that combines Occupational Therapy with Equine Therapy to improve outcomes in clients with ASD. It is called Equine Assisted Occupational Therapy (EAOT) and this presentation outlines the development of this service.

Study Aims and Objectives

The aim of the study was to evaluate the effectiveness of using an equine setting to achieve therapeutic goals set by an Occupational Therapist following assessment and evaluation of need of clients with Autism Spectrum Disorder between 2 and 18 years of age. This was achieved through carrying out the PedsQL Outcome Measure with parents before and after intervention and analysing results. This study also outlines a number of case studies where Equine Assisted Occupational Therapy has proved effective in meeting therapeutic goals for young children and young people with Autism.

Study design

Program evaluation

Study population and sampling

The population used were clients referred to the service over a period of 12 months from April 2017 to April 2018. During assessment their parents were asked to be involved in the study, and required to complete the PedsQL outcome measure questionnaire. This was also filled out after intervention. The children and young adults attended Equine Assisted Occupational Therapy sessions on a regular basis for at least three months prior to re-evaluation.

An overview of the types of service provision, and a number of case studies will be presented, together with plans for ongoing tailoring of the program

Data collection methods and measures



PedsQL – paediatric quality of life outcome measure questionnaire was used pre and post intervention, providing information on quality of life issues that improved as a result of the input through Equine Assisted Occupational Therapy.

Data analysis methods

The PedsQL outlines the Quality of Life enhancements which happened as a result of attending our service. Objective analysis of parental responses was carried out as part of this study.

Duration of study

The study is a review of the first year of the development of a new service.

Outcome/Results

PedsQL results, observation and parental records suggest that EAOT is having a positive impact on the functioning of children with ASD in the areas of sensory processing, new learning and social integration. As this service develops, we hope to show through further

research that Equine Assisted Occupational Therapy is an effective way of addressing the therapeutic needs of clients with ASD, using the horse as the therapeutic medium.



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Therapeutic riding exercises for core stability and posture

Jane Liddiard¹

¹*Take the Reins / Hills group Riding for the Disabled (Western Australia), , Australia*

Background and statement of problem:

A young adult competition rider, with a complex diagnosis of spina bifida, autism and cerebral palsy, sought an intensive block of therapeutic riding to assist with ongoing areas of difficulty that were impacting her ability to progress in competition: posture, symmetry and balance, as a platform for independent limb movement. These skills were targeted through simple exercises and clear outcomes were realised. This report aims to describe these activities and outcomes to add to the body of knowledge linking specific exercises with therapeutic aims.

Study aim and objectives:

To describe the exercises chosen to develop the core strength and symmetry of a client, the rationale for these exercises and the outcomes of this program

Study population and sampling:

single case review

Data collection methods and measures:

- Interview of the client and her caregivers to establish skills and functional abilities to target
- Clinical observation of posture, movement and function both on and off horse
- Use of relevant objective measures of functional postural control and balance:
 - o Timed turning 360° circle: positive outcome showing decreased time it takes to turn around



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Autism Spectrum Disorder: a challenge to social learning

Dipl.päd. Marietta Schulz¹

¹*Deutsches Kuratorium Für Therapeutisches Reiten E.v., , Germany*

Outline:

The presentation follows therapeutic approaches in ASD therapy (TEACCH/Canadian Approach: More than words/PRT) and will show how they can be adopted to Equine Assisted Therapy.

Video sequences taken in different settings (one to one/vaulting in groups/therapeutic riding/ground work) demonstrate how children and adolescents with ASD can learn to communicate that way.

The special focus is on the inherent social learning aspect and on social integration through the psychomotor activities with and around the horse.



Theme 4 – Cerebral Palsy



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Observation of changes in movement during therapeutic riding in children with cerebral palsy (CP)

Mrs Brita Norrud¹, Dr philos Målfrid Råheim¹, Med lic Margareta Håkanson¹

¹University Of Bergen, Sandnes, Norway

Observation of changes in movement during therapeutic riding in children with cerebral palsy (CP)

Background and statement of problem

Patients treated with therapeutic riding depends on the therapist's ability to observe during the treatment session. The statement of problem is: Can children with CP participating in therapeutic riding achieve changes in movement repertoire, with particular emphasis on trunk control? Are there other important aspects during riding that influence the movement of the rider?

Study aim and objectives

The aim of this study is to enlighten the bodily changes that can be observed during a therapeutic riding treatment series for children with CP.

Study design

Mixed method design, using observation of a treatment series and a test.

Study population and sampling

Two inexperienced riders, children with CP, aged 5 and 6, sampled through convenience sampling.

Data collection methods and measures

The children are observed using a video camera during 5 treatment sessions over 6 months' time.

Simultaneously, the children are tested before and during the treatment series with Trunk Impairment Scale Modified Norwegian Version (TIS-modNV). The study is approved by the districts ethical committee (REK).

Data analysis methods

The videos are analysed qualitatively by looking for themes emerging throughout the treatment session, primarily individually. The themes are thoroughly described. TIS-modNV is analysed individually from a linear graph. The results from the two participants are compared to some extent.

Duration of study

Start September 2016, data collection finished august 2017, thesis finishing may 2018.

Outcome/Results

Preliminary results from the video show: changes in pelvic and trunk movements, from a backward tilted pelvis to a central position of pelvis and an adaption to the horse movement with pelvis and trunk. Changes from asymmetrical to symmetrical trunk position, and a development of rhythmic movement interaction with the horse. The rhythmical movement may not be conscious for the rider. The equipment used on the horse is affecting the rider. The two children have some similar themes from the observation, but the emphasis and content differ, despite similarity in diagnosis. TIS-modNV shows increase in trunk control, but is affected by the therapist goals and facilitation.



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Comparsion of body movements in children with cerebral palsy during hippotherapy and walking.

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¹*Samsung Medical Center, Seoul, South Korea*, ²*Samsung Equestrian Team, Kyunggi, South Korea*

Study Title: Comparsion of body movements in children with cerebral palsy during hippotherapy and walking.

Background and statement of problem: Hippotherapy is thought to be a useful method for improving trunk and movement ability in children with CP(Mutoh et al., 2016). It is believed that improvements in balance and muscle control caused by sitting on a horse (Angsupaisal et al., 2015). However, CP has various functional limitations, and thus indepth analysis regarding the improvements in movement is highly desired.

Study aim and objective: To compare the changes of hippotherapy on three-direction body movements (anterior, horizontal and vertical) between hippotherapy and walking

Study Design: Cross-sectional Study.

Study population and sampling: Six children(age, 9.29 ± 1.80 ; height, 131.29 ± 8.85 ; weight, 28.63 ± 4.80) with CP (GMFCS levels I ~ III).

Data collection methods and measures: Application of tri-axial accelerometry-based portable motion recorder assessment using ActiGraph (GT3X, USA), and Heart rate measurement using Polar(Finland).

Data analysis method: The datas were analyzed by Wilcoxon test. The p level was set at .05. Data were analyzed using SPSS for Windows, version 18.0 (SPSS Inc., Chicago, IL, USA).

Duration of study: 2017. 8. 16. and 2017. 11. 23.

Outcome/Results: Body movement Hippotherapy significantly increased in body movement. However, the heart rate was not significantly different.



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Effect of Hippotherapy on walking efficiency during 6-minute walking in children with cerebral palsy.

InKyeong Park¹, MinHwa Suk¹, JiYoung Lee², HyeYeon Shin², YunSik Seo², KwangYeoun Chung², JeongYi Kwon²

¹Samsung Medical Center, Seoul, South Korea, ²Samsung Equestrian Team, Kyunggi, South Korea

Study Title: Effect of Hippotherapy on walking efficiency during 6-minute walking in children with cerebral palsy.

Background and statement of problem: Hippotherapy is that the horse's gait provides a precise, smooth, rhythmic and repetitive pattern of movement to the rider that is similar to the human gait (McGee et al., 2009). So, hippotherapy will lead to improved the walking ability of children with CP.

Study aim and objectives: To evaluate the changes of steps, gait speed, activity and heart rate in children with cerebral palsy.

Study Design: Hippotherapy treatment (40 min twice weekly for 14 consecutive weeks including 2 weeks of rest).

Study population and sampling: Six children (age, 9.29 ± 1.80 ; height, 131.29 ± 8.85 ; weight, 28.63 ± 4.80) with CP (GMFCS levels I ~ III).

Data collection methods and measures Walking ability measurement using ActiGraph (GT3X, USA), and heart rate measurement using Polar (Finland).

Data analysis method: The parameters were analyzed by the paired t-test. The p level was set at .05. Data were analyzed using SPSS for Windows, version 18.0 (SPSS Inc., Chicago, IL, USA).

Duration of study: 2017. 8. ~ 2017. 11.

Outcome/Results: Physical activity was not significantly changed, however, gait efficiency (especially, gait speed and distance) was significantly improved after hippotherapy.



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Using Accelerometers to Assess the Effects of Hippotherapy on Movement Execution in Children with Spastic Cerebral Palsy

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Study title: Using Accelerometers to Assess the Effects of Hippotherapy on Movement Execution in Children with Spastic Cerebral Palsy.

Background: Hippotherapy is one of the physiotherapeutic methods. The inclusion of hippotherapy in a rehabilitation plan for children with cerebral palsy can have a significant positive contribution, especially in postural and locomotion program of motion. Even though the effect of hippotherapy is undisputed, primarily, it is still based on the empirical experience of therapists. There is a need to objectively assess changes that occur in the patient's musculoskeletal system as a result of the application of hippotherapy. One of the appropriate methods that can be used in hippotherapy research in its natural environment is accelerometry.

Objective: The aim of the study was to evaluate the short-term effect of hippotherapy on selected aspects of motion (postural stability of trunk and head, quality of walking) in children with cerebral palsy.

Methods: Seventeen children with spastic type of cerebral palsy (4 male, 13 female, aged $8,2 \pm 3,1$) participated in this study. Clinical tests of postural stability (modified reach test) and assessment of walking and postural stability in sitting were performed before hippotherapy lesson, after hippotherapy lesson and thirty minutes after the end of the hippotherapy lesson. In total, three accelerometers were attached to the participant's body (in the area of 5th lumbar vertebra, center of the sternum, vertex of the head).

Results and Conclusions: The results of this study could prove the effect of hippotherapy on gross motor function in children with cerebral palsy after one hippotherapy lesson. Currently, the recorded data are being processed and will be statistically evaluated further. The results will be known during January 2018. We expect that the monitored characteristics of motion (postural stability of trunk and head, quality of walking) will improve after completion of one hippotherapy lesson.



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Short-term effect of the hippotherapy on the symmetry of pressure distribution while sitting in children with hemiparesis.

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STUDY TITLE Short-term effect of hippotherapy on the symmetry of pressure distribution while sitting in children with hemiparesis.

BACKGROUND AND STATEMENT OF PROBLEM Sitting posture of children with hemiparetic form of cerebral palsy is usually asymmetrical due to disorders of postural control. One option to improve postural control is hippotherapy which focuses on the sense of balance and allows children to experience symmetrical movements of the trunk and the upper body parts.

STUDY AIM AND OBJECTIVES To assess the influence of hippotherapy on the symmetry of pressure distribution in a sitting position in children with hemiparetic form of cerebral palsy.

STUDY DESIGN Pilot study

STUDY POPULATION AND SAMPLING Participants are children aged 4 - 15 years with right-sided or left-sided hemiparesis who are able to walk and follow instructions. The total number of participants will be at least 12.

DATA COLLECTION METHODS AND MEASURES The Conformat pressure sensor has been used for measurement. The course of the measurement has been the following: 90 seconds in a sitting position with feet flat on the ground and 90 seconds in a sitting position without feet support. The measurement was repeated 3 times (before hippotherapy, up to 10 minutes after hippotherapy and 30 minutes after hippotherapy). Simultaneously a video recording has been made.

DATA ANALYSIS METHODS Collected data is evaluated by Conformat Research 7.60 Software. Statistical analysis will follow.

DURATION OF STUDY Collection of data for the study started in September 2017 and will continue till March 2018.

OUTCOME/RESULTS Improvement of postural control is desired and is expected to be demonstrated by more symmetrical pressure distribution in a sitting position after hippotherapy compared to the pressure distribution before.



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Hippotherapy management of Cerebral Palsy child with associated restrictive respiratory impairment: a case report

Prof. Teresa Xipell¹

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Background and statement of problem

Hippotherapy improves postural trunk control and balance, based on neurophysiotherapy (Bobath, 1986) and riding concepts therapeutic principles (Swift, 2005; Strauss, 1991; De Lubersac, 1977), redirecting spine and achieving to release chest restraint, relaxing diaphragm muscle. Many Cerebral Palsy patients suffer from restrictive respiratory disorders and mucus accumulation (Postiaux 1999). Horse's movements at step can mobilize bronchial mucus facilitating expectoration (Frascarelli, 2000).

Study aim and objectives

To evaluate the effectiveness of a Hippotherapy protocol in Cerebral Palsy children with associated restrictive respiratory impairment.

Study design

Case study. Following therapeutic objectives and defined procedures, intervention protocol was established (one year, one-hour session a week). Two horses: first, a male (1.50-meter-high) and later a mare (1.58-meter-high). English saddle with bow. Human resources: hippotherapy specialized physiotherapist and a horse expert (for guiding).

Study population and sampling

Patient: 5-year-old boy with Cerebral Palsy and spastic tetraparesia. Severe muscular hypertonia in all extremities, left sided predominant. Muscle trunk tone fluctuations, causing kyphotic position with difficult postural control. Gastrostomy feeding. Respiratory impairment with restrictive pattern; pneumoperitoneum and subcutaneous emphysema past clinical history. Cognitive impairment without voluntary actions or movements. Walking ability not achieved.

Data collection methods and measures

Registered variables/evidences: photographs, X-Rays, measurements and O2 saturation to analyze posture, postural imbalance, muscular tone; expectoration capacity and patient's behavior was registered qualitatively.

Data analysis methods

Pictures, X-Rays, and Clinical outcomes were qualitatively analyzed; measurements were compared before-after treatment; no statistical analysis was ruled out.

Duration of study

One year.



Outcome/Results

When patient achieved tolerance and enjoying horse's rhythmic movements, given the patient's pelvis position stability when on horse, rachis and deepest trunk muscles were subtly activated and correct alignment of rachis was encouraged. Lower limbs placement was correctly maintained during therapy sessions for the patient to hand hold the bow to increase elbow joints mobility.

After treatment, rachis straighten was achieved allowing him to seat on his stroller without back support and achieving better ventilation and mucus secretion with Autogenous Drainage (Chevallier, 2016). In addition, an attitudinal change in cognitive attention, Communication and Language was obtained, seeking more visual monitoring during therapy.



Theme 5 – Early Intervention



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Early Intervention: Risks by physiological features of small children!

Mrs Stephanie Tetzner¹

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This lecture is a systematic review of early intervention relating to physiological features of new-borns and small children compared to teenagers and adults.

Four aspects will be highlighted:

1. The development of the head size from a new-born up to an adult in relation to the body size will be explained, as well as the resulting stress of the cervical spine. What happens if the child has not enough head control? What are the consequences for the small cervical spine if the horse stumbles.
2. I will focus on the physiological development of hip joint and the resulting flexibility of the hip and the lumbar spine of the child sitting on the horse.
3. I will take a look at the development of the spinal column from a complete kyphose in new-born age up to a normal S-form. Here we will find a big difference between children with normal development compared to handicapped children.

Do we have a beneficial therapy if the child is sitting in a complete kyphosed position? What are the consequences, especially when looking on the last point.

- 4.) I will talk about the ossification of the big joints and the paravertebral joints. We will see, that there is a possibility to injure the small joints in the growing time.

The medical point of view will be explained in more details with videos and pictures of different children.

A well founded study, which could prove these ideas, would expose the children to a big risk for their health. Therefore, it is not possible to find a suitable study design.

So I will use anatomical, functional and physiological facts for my explanations.

The aim of this analysis is to provide the well framed therapist with a risk benefit comparison under the consideration of the anatomic and development physiology knowledge.



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Gait and Gross Motor Skills in Two-and Three-Year-Old Children with Developmental Delay Participating in Hippotherapy Intervention

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Study title Gait and Gross Motor Skills in Two-and Three-Year-Old Children with Developmental Delay Participating in Hippotherapy Intervention

Background and statement of problem

Developmental Delay (DD) in young children occurs at a rate of 13.8% in the U.S.¹ Early intervention is important in DD treatment.² No studies examining the effects of hippotherapy on children aged 2-3 years diagnosed with DD have been reported.

Study aim and objectives

The objective was to assess gait and motor skills of subjects with DD before and after a 15-session hippotherapy intervention.

Study design

Computerized gait analysis and the Battelle Developmental Inventory (BDI-2) were administered to study subjects before and after 15 weekly hippotherapy sessions. Preliminary results presented are from 5 of 12 children that have completed the study.

Study population and sampling

Subjects were children 2 to 3 years of age diagnosed with at least 25% gross motor delay who had physician prescriptions for hippotherapy.

Data collection methods and measures

Gait kinematics were measured using a motion capture system (Vicon Nexus; 100 Hz). Means of gait speed, step width, step length, and stride length were calculated. The BDI-2 was administered pre- and post-hippotherapy intervention by two licensed therapists.

Data analysis methods

Paired t-tests were used to compare gait and motor skills before and after 15 hippotherapy sessions.

Duration of study

Admission was on a rolling basis. Subjects received 15 weekly 30-min. hippotherapy sessions.

Outcome/Results

Gait speed increased after hippotherapy ($p < 0.05$); however other gait parameters were N.S. Gross motor delay was significantly decreased after hippotherapy intervention ($M = 46.0\%$ vs 13.4% ; $p = 0.006$). Similarly, gross motor percentile rankings of all subjects improved after hippotherapy (3.4 vs 31.4 ; $p = 0.006$). Data



from currently participating subjects will be analyzed as their interventions are completed and compared to 12 age-matched controls (non-DD). These data will provide important quantified information concerning the benefits of hippotherapy to young children with DD.

¹ Boyle CA, Boulet S, Schieve LA, et al. Trends in prevalence of Developmental Disabilities in U.S. children. *Pediatrics* 2011;127 (6):1034-1042.

² Adams RC, Tapia C. Council on Children with Disabilities. *Pediatrics* 2013;132, e1073-e1088.



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Horses in the school - the appearance of social pedagogic elements in equine-assisted intervention

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Study title

Horses in the school - the appearance of social pedagogic elements in equine-assisted intervention

Background and statement of problem

The statement of the research problem is: how does social pedagogic elements (action, dialogue, communality and experimentality) appear during the equine-assisted education intervention in a school environment, and what is the role of the horse in interventions. The theoretical framework was built around the social pedagogic theory and the theories of animal-assisted education and learning.

Study aim and objectives

The aim of the intervention was to help the participants to practice taking other students into consideration and to strengthen the cohesion of school classes. This study was the first cycle of a design-based research process and its purpose was to be the beginning of a wider research entirety, which is going to develop equine-assisted methods in the school environment.

Study design

The study was a qualitative study. The methodological framework of the study was design-based research. Two school classes of 12-14 year old students attended the equine-assisted projects during their school days.

Study population and sampling

There were two groups of 12-14 old students, 30 in all.

Data collection methods and measures

The action with horses was observed and photographed. The evaluating discussions were recorded. The participants also filled a questionnaire with open questions.

Data analysis methods

The research data was analysed by qualitative methods, because the data consisted of experiences, photographs and observations which cannot be measured by statistical methods.



Duration of study

The data was collected in one month. The study began in spring 2017 and it's going to finish in spring 2018.

Outcome/Results

The students had positive experiences with the horses and also with their schoolmates as a group. The students could practice communal skills with the horses and with each other. The horses enabled the practice of dialogue skills between the students and the horses, but also between the students themselves. The project with the horses was a communal experience which extended outside of the class (homes, other classes).



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Malaysia Experience in Hippotherapy

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Malaysia is a small country in the South East Asia with slightly over 30 million population. There are more than 200,000 children with special needs including, Attention Deficit Disorder, Autism Spectrum Disorders (ASD), cerebral palsy, delayed development, Down syndrome, Emotional Disorders, Spinal Bifida and Cognitive disabilities post Traumatic Brain Injury

Green Apple Hippotherapy is the first and only centre in Malaysia providing hippotherapy and therapeutic riding for children with special needs with a proper qualified therapists and well experience therapist.

We would like to share our experience, challenges and what we are doing to overcome these challenges in trying to make hippotherapy an accepted form of medical rehabilitation therapy.



Theme 6 – Specific Learning Disability



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USING ETHOLOGY RESEARCH AS AN EQUINE FACILITATED LEARNING STRATEGY

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This paper content is a simulation of ethology research done on horses by children who attend Equine Facilitated Learning (EFL) program in Vladykův dvůr Farm EAAT centre. This project ran during the year 2017 and was supported by The Czech Therapeutic Riding Association. The paper shows the whole process and besides the specific research results it shows its educational effect as well.

EFL goal is to help persons with special needs as well as persons of intact condition so that it develops their education and soft skills. Children often mean well but they have distorted ideas of social and biological needs of horses. Dispelling myths may be difficult – the same difficult as understanding the human beings. An ethological research, a „real“ scientific work makes children possible to see the real world of horses.

The message of this paper is to reveal of what importance it may be to use ways of scientific research on the field of equine ethology not only with children with special needs but with healthy children as well.

For the horses' behaviour research itself the interval method (with 10 minutes long intervals) was used. And following behaviour categories were monitored: eating, standing, lying, moving and comfort behaviour. Several herds of horses under a 24/7/365 management with a habituated peck order were followed.

83 children from 6 to 17 years of age and 14 adults participated on the research.

The results are ethogrammes which show horse groups recorded according to each behaviour category during the ten minutes' intervals. Process and percentage graphics showing the individual behaviour categories as well as a short film were made by the children themselves.

The ways used in this scientific research not only enabled children to get an insight into the real life of horses but also to experience what responsibility they have for the work, how demanding such research may be, how much patience they need and how difficult it is to stay objective as well as to direct their own behaviour and desires to a long term goal.



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Help, my teacher's a horse!

Strengthening executive functions through experiential learning with horses.

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Abstract

This lecture is helpful for youthworkers, social workers and teachers interested in assisting youth with low executive functioning by experiential learning with horses in order to achieve huge improvement in behavior, cognition and increasing the learning capacity, based on the definition of experiential learning: “EL with help from a horse is to create a methodological learning situation, which provides concrete and intense experiences, which, after reflection leads to changes in cognition and behavior in many facets of life.”

This programme stresses importance in foundations of methodological working (intake-goalsetting in a treatment plan-intervention-evaluation and -eventually- adjusting goals) because the intervention is:

- focused on goals and needs led assessment
- systematic: it goes by planned steps, given by goals
- by means of a process: steps are related to each other, considering the effect of each step to the other
- conscious: the social worker/teacher knows what he’s doing (planning) and why (goals)

There are three ways to strengthen executive functions: by changing environment, by learning/teaching skills and by the use of rewards. Horses can play an important role in strengthening, as well as on account of the biological and physical effects (release of oxytocin and dopamine, lowering cortisol, increased bloodflow in the brain) as well as on the social-cognitive effects (self-efficacy, performance accomplishment, personal agency, role theory and the theory of the transitional object) of the horse.

Both effects result in improving the working memory, cognition and behaviour, illustrated in this lecture by case studies.



Theme 7 – Vocational Training



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Teaching learning interventions, assisted with equines for teachers of the National University of San Juan, of the educational sciences program

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Profesor en Psicología Yanina Sanchez¹, Ms Mariela del Valle Calvo¹, Mrs Cristina Canet¹

¹Fundación de Equinoterapia San Juan - Argentina., San Juan, Argentina

ANTECEDENT AND EXPOSITION OF THE PROBLEM:

The research proposal, between Universidad Nacional de San Juan and Fundación Equinoterapia San Juan, arose from the need to enrich the teaching practice of university students and from the interest of the university of building up interdisciplinary professional knowledge and experiences.

The proposal was to work with horses, active protagonist, hippotherapy students of the Special Olympics horse-riding program and university students of the educational sciences program of the University.

Three modules were planned, in the theoretical and practical framework, favoring the teaching-learning process, helping to build new knowledge and resources, increasing the capacity to respond to specific rubrics, in pedagogical intervention assisted with equines, in formal and non-formal contexts, that allows turning the classroom into an area of life community and diversity.

The research consisted in a training device for university students, providing new pedagogical didactic tools, to expand the identification search of new resources and to understand that people go through different paths to learn.

OBJECTIVES OF THE STUDY:

- To create new resources through the design of assisted interventions with equines.
- To promote integrated and interdisciplinary education, valuing teamwork.

STUDY AND SAMPLING POPULATION:

89 students, students of the higher education Institute, INES, and university students.

Methods and measurement of data collection:

The method E.A.G.A.L.A and technical supports of the area of education and The Hippotherapy sport. Field work and observation, interviews, and debate.

Method of data analysis:

Qualitative method of data analysis. Statistical analysis was not used.

Duration of the Study:

First stage: Two years of thesis research.

Second stage: Pilot study of planning, theory and practice modules.



Result:

By Resolution No. 150/17-CD-FFHA, the investigation was integrated into the university extension and by Decree 0787-V.P. Provincial of social and educational interest.



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Learning to make a difference - a National Training Programme for the volunteers of RDA Ireland

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Title

Learning to make a difference- a National Training Programme for the volunteers of RDA Ireland

Background

In 2016, Riding for the Disabled Association Ireland (RDAI) successfully applied to Horse Sport Ireland for a training grant to enable a national volunteer training programme

RDAI is a charity delivering therapeutic riding and carriage driving to participants with physical and intellectual difficulties. RDAI has 50 groups with a volunteer membership of 500 located within 13 Areas throughout the Republic of Ireland.

Study Aim and objectives

To deliver a national two day training programme in accessible locations to enable as many RDAI volunteers as possible to attend free of charge.

Study design

A RDAI Field Officer was tasked to source suitable equestrian venues easily accessible to RDAI volunteers, with an indoor school, a classroom facility, suitable horses for delegate practical work, mounting facilities and catering.

The training consisted of two consecutive days; day one for helpers and the second day for instructors to specifically target their different roles. Theory and practical sessions addressed mounting and dismounting, session planning, goal setting, risk assessment, helping riders with physical challenges, understanding medical terminology, games and activities, contraindications and precautions, roles and responsibilities, horse welfare, effective leading and teaching riding skills.

Study population

RDAI volunteer instructors and helpers were purposefully recruited. No RDAI participants were involved so formal ethical approval was not required. Participation was entirely voluntary with no incentives offered except refreshments and the right to withdraw upheld.

Data collection methods



The volunteer's views were sought by the voluntary completion of a written questionnaire at the end of each training day. The volunteers could choose to complete the questionnaire individually or as a group.

Data analysis

276 volunteers from 41 RDAI groups attended in 9 different locations. 194 questionnaires were returned. Analysis is ongoing but first impressions are that the volunteers found the training very useful and helpful with further training needs identified.

Duration of study

One year

Outcome / results

Financial investment from Horse Sport Ireland has enabled the RDAI project team to achieve their aim of delivering a national training programme for their volunteers..



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Back on the horseback - A program to promote personal growth and professional development through Equine Assisted Learning

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A stressful lifestyle can put people under extreme pressure, to the point that they feel exhausted, empty, burned out, and unable to cope. Stress at work can also cause physical and mental symptoms. Possible causes include feeling either permanently overworked or under-challenged, being under time pressure, or having conflicts with colleagues. Extreme commitment that results in people neglecting their own needs may also be at the root of it. Problems caused by stress at work are a common reason for taking sick leave. But sometimes changes in the working environment and more concrete support in everyday life can already help with things like problems at the workplace. In this paper we present the program "Back on the horseback" - a preventive program, based on equine assisted learning and growth, which is focused on cognitive-behavioral therapy (CBT), cognitive restructuring, didactic stress management, and relaxation.

Within the program we achieve a comprehensive insight into the functioning of an individual, analyze his/her relationships in different social environments, and then offer support to deficit areas. The program can improve the "outer" and "inner game" of individuals: definition of individual's personal characteristics, recognized by the individual him/herself or team, establishing the team roles, improved concentration, focus and targeted orientation, improve assessments, promote assertiveness, strengthening relationships, improving communication skills, ability to cooperate and lead, and the establishment of a common identity and following the common goals (while working in teams/groups). Through focused and goal-oriented intervention with horses we can provoke excellent experiential learning situations for self-awareness, intuition, creative problem solving strategies, coping with their own fears, doubts, burdens and other restrictive concepts, which in the process of coaching with appropriate professional support enable the individual to effectively resolve and give meaning to their new vision of being.



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Study Groups multicentric as an innovative alternative for the upgrading of Brazil's equine therapy Centers

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Introduction: during the last few years, there has been an increase in the number of equine therapy centers in Brazil. The National Association of Equine Therapy's (ANDE BRASIL'S) website states that there are 241 registered centers that are affiliated and aggregated to it. Due to the demand on experience exchange, the proposal of a travelling study group came to light. It would provide the sharing of experiences and studies between the equine therapy centers of Brazil. **Objective:** qualitative assessment of the study group's contribution to the improvement and innovation of practices in the participating equine therapy centers. **Materials and Methods:** 12 encounters have been done and, with a methodology specify in each meeting. The inclusion criteria for the participation in the study group were: at least three years of experience in equine therapy, being present in at least 80% of the meetings and staying from the beginning to the end of each monthly four-hour period of studies. The participants included 10 equine therapy centers from São Paulo, 2 from Rio Grande do Sul, 6 from Ceará and 4 from Minas Gerais. The themes of each meeting was about the physical structure, materials and horses. Written and oral reports have been used about the content discussed, quality of the debate, importance of the theme for equine therapy, perceptions and feelings of participants. **Results:** According to analysis of report of participants, all the themes served for the maturation of the team, improvement of communication among the internal members of the centers, improvement of relationship and communication between the participating centers and new ways of acting. The reports demonstrate the importance of the union of the centers of equine therapy that often go through the same challenges and doubts regarding the physical structure, materials and horses, besides the awakening of the desire to carry out multicentric researches. **Conclusion:** this experience was an innovative alternative for the improvement and innovation of the participating centers of equine therapy. We suggest the replication of this model of study group in other centers in Brazil and the world.



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The Challenges and Benefits an on the job Equestrian Vocational Training Model for Young Adults with Various Abilities and Support Needs

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Young people with various supports needs who leave school early or leave school with negative experiences of school have been shown to experience poor self-esteem, low self-image and self-confidence and less resilience than those who are reported to be high academic achievers. Research shows that experiential learning provides a very effective learning approach, in particular, when coupled with opportunities for timely, meaningful and well-structured feedback. For young adults with various support needs who have not excelled in a classroom environment for a variety of different reasons, access to this approach to learning have particular benefits. In an equestrian environment benefits can include the need to look after and care for horses which, for some, represents a 'first time' of being responsible. The absence of feeling judged by horses is frequently cited as a key benefit.

However, despite the benefits of an 'on the job' learning model, there exist also a variety of challenges. For example, this model implicitly requires the learner to very quickly adapt to a real 'on the job' learning environment which for some, requires a certain ability to self-regulate in times of challenge. Punctuality and attendance is also required of learners who may have a poor record in this area. Other areas such as prosocial skills are typically expected in a place of work but again may need to learnt in a supportive and guided manner which again can cause certain conflicts. In this regard, though there are many benefits there exist also many challenges.

This presentation will describe an on-the-job Equestrian Vocational Training Model for young adults with various abilities and support needs and will address three key areas. Firstly, it will describe the 'on the job' learning model including funding mechanisms, programme overview and learner profile. Secondly, it will describe the benefits and opportunities of an 'on the job' learning model together with the challenges it presents and strategies for dealing with them. Thirdly, progression for learners upon completion of the programme will be presented and will be illustrated with a small number of case studies.



Theme 8 – Intellectual Disability



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The role of therapeutic riding in the education and upbringing of young people with intellectual disabilities

Ms Joanna Dzwonkowska¹, Ms Anna Strumińska²

¹Handicapped Children Aid Foundation HIPOTERAPIA, Warsaw, Poland, ²Polish Hippotherapeutical Association, Warsaw, Poland

The author describes her experience of several years' work with disabled youth within the framework of Saturday Riding Club for young people with intellectual disabilities. This Club is run by the Disabled Children Aid Foundation HIPOTERAPIA

The participants not only ride on horseback for three hours once a week, they look after their horses and clean up the stables, but they also have time to be together, to have a quiet conversation, to exchange ideas and experiences, learn various new things and consolidate the knowledge and skills they gained during many years of education in school.

The author describes how riders develop their talents and skills in favorable conditions in the atmosphere of unconditional acceptance, empathy and authenticity of real life situations. She shows how they recover a natural motivation to learn new things when they do not have to fear failure, as they often do in school. The author goes on to describe how their mutual relationships change, and how they improve communication and cooperation skills.

Reinforcement, that is the reward, plays a huge role in this process. For the riders of the Saturday Riding Club the horses and riding undoubtedly present the reinforcement, but another powerful factor is the social strengthening, that is being in a peer group where they feel good, where acceptance, mindfulness and praise for every job well done accompanies them at every step of the way.



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How to enhance skills of handicapped people through the use of trail obstacles in equine facilitated programmes

Ms. Alexandra Meissel¹

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In addition to all the benefits equine assisted programmes always have trail obstacles provide another motivating, challenging setting. Trail riding is an excellent way for riders and horses to bond and work on communication aids in a new environment. An obstacle course tests a horse and rider's ability to work as a team and by navigating through and mastering the different challenges riders can enhance their horsemanship skills and many others ([https://www.aqha.com/riding/pages/trail-riding/trail-tips\(24.11.2017\)\)](https://www.aqha.com/riding/pages/trail-riding/trail-tips(24.11.2017)))).

Possible trail obstacles we use in our work are see-saw, bridge, logs, barrier tape, pylones or gates.

We differentiate between:

1. The client leads the horse over the obstacles from the ground by himself
2. The client rides the horse and directs it to the obstacles, but the horse is led by the instructor all the time

In what ways can clients benefit from riding trail courses?

1. Cognitive skills: to develop and follow a strategy for a sequence of actions (first obstacle, second,...), focus concentration and maintain it through the sequence of obstacles
2. Physical: skills in directing the horse to and over the relevant obstacle enhances balance, coordination, tone and endurance
3. Social & language skills: cooperation, communicating with the horse and the leader in order to master the challenges
4. Emotional skills: trust, tolerance, patience, self-confidence, realistic self-concept, self-efficacy

It requires very accurate assessment skills of the instructor in order not to overstrain the client and set the tasks according to his abilities. Keeping in mind that an important component of therapeutic riding is goal setting (Nicole Budden <http://www.disabledsportsusa.org/sport/equestrian> (10.11.2017)) this is also an essential part in the trail course. The client negotiates with the instructor what individual obstacles he wants



to master and then find out if he is able to do so. The instructor gets an idea of the clients' self-assessment abilities, supports and accompanies him in the process. The instructors' intervention must correspond with the clients' level of skills.

„Striking the balance“ here means that the instructor needs to find the right balance between preventing horse and client from dangerous situations and yet let the horse give a feedback to the client.



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The programs of Educational and Therapeutic activities with the assistance of horses in URUGUAY and the experience made in CENAFRE

Profesor / Mayor Del Ejercito Gustavo Dos Santos¹

¹*Centro Nacional De Fomento Y Rehabilitacion Ecuestre, Montevideo, Uruguay*

In the early 1990s, work began with equestrian therapy in our country, with the Riding School of the Army being one of the pioneer institutions, that in 1995 a pilot project began, where a group of adolescents with Down syndrome attended recreational activities. The benefits began to be seen very quickly, with more institutions from all over the country that worked with people with different disabilities being interested in receiving the benefits of the therapy. Due to the great boom obtained, horse riding teachers and health professionals were sent to train abroad (Italy, Brazil, USA) in order to obtain more information about the therapy and thus obtain the theoretical support and practical experience to work with more pathologies. In 2002 there were already 15 centers throughout the country located in Army units, providing therapy for free, to 350 people with different cognitive and physical disabilities. Product of the growth and demand for the therapy that existed in the whole country, the need was seen to create an organ that would regulate the functioning of it and of the centers. The Army, through the Ministry of Defense, presents a project to create the "National Center for Equestrian Development and Rehabilitation" (Ce, Na, F, R, E,) with a national scope and based at the Riding School of the Army, which on July 1, 2003 is approved by a decree of the Executive Power. At present the Ce.Na.F.R.E. It has 41 associated Military and Civil Centers throughout the country that serve a monthly population of 1500 people with different disabilities and pathologies free of charge. Since 2003 a training course for instructors in Equestrian Rehabilitation has also been given, which over the years has undergone modifications, being currently a university-level tertiary education with a duration of 18 months, being one of the course most complete in the region.

Important national and international recognitions have been obtained, standing out the obtaining of FEI Award AWARDS 2013.



Theme 9 – Mental Ill Health



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Equine Assisted Therapy (EAT) for military veterans diagnosed with Post-Traumatic Stress Disorder.

Dr. Anne Barnfield¹, Dr. John Mitchell¹

¹*Brescia University College At Western, London, Canada*

2. Background & Statement of Problem:

Although effectiveness of EATs for mental health issues has begun to be investigated, research into outcomes is lacking. This study builds upon our prior research and current therapeutic practice to advance a greater understanding of applications of EAT in psychotherapy.

3. Study Aim & Objectives:

The study investigated of effectiveness of EAT as therapy for PTSD. It is hoped that this will encourage investment in further research by granting bodies (e.g., Veterans Affairs Canada) and to validate EAT as therapy.

4. Study Design:

Within subjects design: Pre-treatment versus post-treatment comparison, with follow-up.

5. Study population & Sampling:

Military Veterans with prior diagnosis of PTSD. Participants recruited via support organizations.

6. Data Collection Methods & Measures:

Participants engaged in 10, weekly, two hour EAT group therapy sessions incorporating psychotherapy and interacting with equines. Activities with equines included observation, grooming, reflective work, and activities such as leading. Sessions were conducted by a registered Clinical Counsellor assisted by a certified Life Coach, and an experienced, Canadian Therapeutic Riding Association (CanTRA) certified instructor.

Data was collected through questionnaire-type tests and post-session interview of participants. The Rosenberg Self-esteem Scale, the Positive and Negative Affect Scale (PNAS), and the National Centre for PTSD's Post-Traumatic Stress Disorder Checklist (PCL-5), were administered pre-EAT sessions, post-EAT sessions, and in follow-up. Participants were interviewed after the end of the study. Measures will be repeated at further time points after completion of EAT sessions.

7. Data Analysis Methods



Two, single participant cases studies reported. Qualitative (interview content) analysis, giving more in-depth information on the participants' experiences. Individual data (pre- and post-test scores).

8. Duration of the Study:

Approximately three months, not including longer-term follow-up.

9. Outcome/Results:

With only two participants, analysis was case-study rather than experimental. For both participants, improvements in scores on all pre- versus post-session measures were found.

Primary outcomes: Understanding of effects/effectiveness of EAT for PTSD. The proposed study aids in understanding of innovative EATs and their outcomes, and benefits in wellbeing for the participant population.



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Combatting Compassion Fatigue

Ms Michelle Black¹

¹*Elegrow, Kunghur Creek, Australia*

The phenomenon of Compassion Fatigue (CF), articulated as the cost of caring for clients that have experienced Trauma (Figley, 1995), is presented from a study of empirical research relating to CF among Community Care Professionals (CCPs). The study uncovered, the symptoms, prevalence, risk factors and best practice interventions identified to alleviate individual experiences and symptoms of CF. CCP populations explored include; nurses, counsellors, social workers, hospice care workers, residential care professionals, mental health practitioners and military health practitioners. The research informed the development of a care professional resilience program, Combatting Compassion Fatigue in Community Care Professionals. This program targets a combination of best practice interventions to educate, develop self-care, emotional intelligence and problem solving capability to foster resilience and reduce the risk and experiences of CF among CCPs. An evaluation of the program occurred with a purposeful sample of 10 CCPs working in residential care facilities in Northern New South Wales who self-selected to participate in the program. The EAGALA model (found to contribute to significant improvement in the wellbeing of clients experiencing PTSD), was used to facilitate the program interventions. A pre and post, analysis of the program revealed the groups Professional Quality of Life scale scores for Compassion Fatigue and Burnout decreased whilst Compassion Satisfaction increased and the Genos Emotional Intelligence analysis found a statistically significant improvement in the group's overall emotional intelligence ($p > 0.05$) and statistically significant improvements ($p > 0.05$) in the emotional intelligence factors of emotion self management, emotional expression, emotion self-control and emotion awareness of others.



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The Eagala Model: Theoretical Foundations and Facilitation Skillsets working with Trauma and Other Psychological Issues

Lynn Thomas¹, Philippe D'Helft^{1,2}

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Horses are a common denominator in equine-assisted therapy programs. What differentiates programs are goals, standards, theoretical foundations and facilitation styles. There is value in this diversity, and it is important for researchers and consumers alike to identify and understand these differences. This presentation will identify these foundations of the Eagala Model of equine-assisted psychotherapy and personal development drawing from references: Buck, P.S., Bean, N., & De Marco, K. (2017). Equine-Assisted Psychotherapy: An Emerging Trauma-Informed Intervention. *Advanced in Social Work*, 18(1), 387. doi: 10.18060/21310; *Transforming Therapy through Horses* by Thomas and Lytle; and the Eagala training program. Using case illustrations, the presenters will highlight key theoretical foundations and skillsets in facilitating the Eagala Model addressing trauma and other psychological issues. The presentation will provide a reference list of recently published research utilizing the Eagala Model.



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Integrating horses into evidence-based trauma therapy

Mag. Roswitha Zink², Dr. Karin Hediger¹, Mag. Renate Deimel²
¹University of Basel, Basel, Swiss, ²E.motion Equotherapy, Vienna, Austria

The benefits of including horses into evidence-based treatment concepts of trauma therapy is pointed out by many practical examples and growing scientific evidence. The aim of this presentation is to build a bridge between science and practice by illustrating practical examples that can serve as an inspiration for one's own work.

We present possibilities and mechanisms that show how the treatment of patients with posttraumatic stress disorders can be enriched by integrating a horse. Moreover, we present different psychotherapeutic techniques that are helpful within the three treatment phases of stabilization, exposition and integration. Hereby, we combine the patient-horse relationship with dialectical behaviour therapy, narrative exposition therapy, EMDR, schema therapy etc. The presented mechanisms and techniques are based on the scientific studies gathered and mentioned in the book "Horse-assisted Trauma Therapy" (Hediger & Zink, 2017, Ernst Reinhard publishing company).

The second focus of this presentation lies on the therapy horses. Horses who work with traumatized people need a special training and supervision. We explain how training horses a veto-signal and a special breathing technique can become an effective mechanism for stress regulation for the therapy horses. This is an important aspect for healthy, self-determined therapy horses and prevents learned helplessness.

In the end, we link these two parts. We propose that horse training and therapeutic orientation can complement each other. Techniques of horse training can also be very helpful for patients and help them practicing emotion regulation and enhance their competences.



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Horses in the Treatment of Trauma: Integration with Evidence-Based Trauma Practices

Nina Ekholm Fry¹

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Advances in the field of neuroscience over the past 30 years have led to a more comprehensive view of the effects of trauma on the brain, mind and body (van der Kolk, 2014; Siegel, 2012). In addition to better understanding the nature of trauma, finding ways to help individuals seek treatment, to remain in treatment, and for practitioners to optimize treatment is crucial (Najavits, 2015; Sayer et al., 2009). The inclusion of horses in the treatment of trauma has the potential to address each of the three areas and can be done by enhancing existing evidence-based trauma treatment approaches. Addressing trauma, either directly through the traumatic memory or through strengthening other aspects of functioning, relies on the presence of a skilled and appropriately credentialed therapy professional, just like in other treatment strategies. Simply providing mental health services with a horse without education, training, and supervision in doing so and, importantly, without specific training in the population or diagnosis is not ethical practice. This presentation provides guidance in how to integrate equine-assisted therapy with evidence-based trauma treatment approaches such as EMDR and following a tri-phasic approach as part of best practices.



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Horses Helping Humans Helping Horses

Ms Cathy Binz¹

¹*Equestrian Australia, Brisbane, Australia*

This is a case study of a start-up Equine Therapy Program, which had its beginnings in a horse rescue organisation in South East Queensland, Australia.

The horse rescue, Save A Horse Australia (SAHA) has a 10-year history of rescuing sick, injured, neglected and elderly horses, rehabilitating them, retraining them and then rehoming them.

However, quite a number of the horses rescued were unable to be rehomed due to behavioural or physical issues.

The idea of using these horses in Equine Therapy programs led to a collaboration with Mates are Mates, a program helping war veterans deal with mental health issues.

So the horses that were helped, in turn become the helpers themselves.



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Understanding the Therapeutic Environment in Equine-Assisted Therapy

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An ethical issue in the equine-assisted therapy field not frequently discussed relates to social justice and rights, which are central to mental health fields such as psychology, counseling, and social work. Are therapists who include horses in their practice sufficiently considering privilege, power, and oppression, also in relation to other species, such as the horse, and the position horses have in the therapy session? The therapeutic environment, which includes therapist, client, horse and environment, cannot be fully therapeutic if the perceived position of power that the therapist has is overlooked, and the same goes for the position of power vis-à-vis the horse in the session. When clients who experience marginalization in their daily lives also sense it in the therapeutic environment, the therapeutic relationship, which, in equine-assisted therapy is expanded to include the horse, is not beneficial. The therapist needs to be sensitive to features of human-horse interactions that perpetuate the power differences between humans and horses in a way that might introduce a sense of exploitation into the therapeutic environment as the client, through experiencing the relationship between the therapist and the horse, can assess how the therapist treats and values others, which likely contributes to how safe the client will feel in the context of treatment. This presentation contains considerations for creating and sustaining a therapeutic environment for equine-assisted therapy.



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Impact of a Nature and Equine Assisted Mindfulness (NEAM) program on stress control skills on working aged adults

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Study title: Impact of a Nature and Equine Assisted Mindfulness (NEAM) program on stress control skills on working aged adults

Background and statement of problem: Psychological stress is a serious problem which causes many harmful physical and psychological consequences as heart diseases and depression (Djuric et al., 2008). Mindfulness has advantages in stress tolerance, quality of sleep and physical health (Grossmann et al 2004). Natural environments turn out to be particularly rich in the characteristics necessary for restorative experiences (Kaplan, 1995).

Study aim and objectives: This small scale mixed methods study examined the impact of a Nature and Equine Assisted Mindfulness (NEAM) program on the stress control skills.

Study population and sampling: NEAM sessions were delivered for 1,5 hours per week for 7 weeks. The target group was working aged adults (over 18 years old) who experienced stress in their everyday life.

Data collection methods and measures: Mindful awareness attention scale (MAAS) test was conducted before and after the 7 weeks period to compare participants mindful awareness attention scores. Another quantitative data set was gathered from a questionnaire including questions about stress control skills, assets and recreation. Qualitative data was gathered using an open question.

Data analysis methods: The average of MAAS total scores were calculated before and after program. The data set of stress control skills, assets and recreation was calculated as percentages of answers. All data sets were integrated and interpreted.

Duration of study: 7 weeks

Results: The average increase in total MAAS scores was 0,8 on average (24%). Higher scores indicated greater mindfulness. Other quantitative findings identified improvements in stress control, assets and self-esteem. The nature environment and the horse were reported to support recreation, fascination and secession. The participants self-reports suggest participation in the NEAM is associated with positive behavioral changes, having new tools for stress control and better self-esteem.



References:

- Grossman P, Niemann L, Schmidt S, Walach H., Mindfulness-based stress reduction and health benefits. A meta-analysis, *Journal of Psychosomatic Research*, 57:35-43, 2004
- Kaplan, S. The restorative benefits of nature: Toward an integrative framework, *Journal of Environmental Psychology*, 15:169-182, 1995



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Equine-Facilitated Psychotherapy with at Liberty Horses and Clients with Addiction, Dependency, and Behavior Disorders

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¹Grand Valley State University, Grand Rapids, United States, ²CARAE - Santa Cruz, Guadalajara, Mexico

Many mental health professionals around the world offer equine assisted/facilitated psychotherapy for persons with mental health disorders. These professionals use different theoretical foundations for incorporating the horse from different educational and training programs such as EAGALA and PATH, Intl (EFMHA). Most theories of equine facilitated psychotherapy focus on evaluating the behavior of the horse and its relationship to the mental health and behavior of the client. The purpose of this presentation is to discuss the benefit of using horses "at liberty" meaning the horse is free in the arena with no halter or lead during these psychology counseling sessions. We will discuss how to maintain safety, interpret the behavior of the horse in reference to specific clients with behavior, addiction, and psychiatric disorders. We will also provide details for session activities that have resulted in powerful breakthroughs for our clients.



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Experiential Learning with Horses: An Innovative Approach to Fostering Resiliency-based Competencies in At-Risk Youth

Ms. Jennifer Garland^{1,2}, Ms. Sonya Vellenga², Dr. Kateryna Keefer³

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Strength-based skills such as personal resiliency and socio-emotional competencies play a protective role against the negative physical and mental health outcomes associated with exposure to traumatic experiences. Equine-assisted learning (EAL) is a promising innovative approach to foster these important strength-based skills, particularly in children and youth. This study examines the effectiveness of a community-based group program consisting of 8 weeks of EAL sessions, counterbalanced with 4 weeks of supplemental expressive arts and psycho-educational workshops, for four groups of young women aged 13 - 18 who reported experiencing child maltreatment or exposure to intimate partner violence. Results examine changes in self-reported socio-emotional competencies, sense of mastery and a sense of relatedness following the EAL programming, related to changes following the supplemental programming, as well as longitudinally at 1-month and 6-month follow-ups. Quantitative results are also supplemented with participant's qualitative feedback. Results are discussed in terms of their implications for EAL as a tool to foster resiliency-based competencies in at-risk youth. Furthermore, this research is important in informing current and future prevention and intervention efforts and advancing innovative trauma-informed practice.



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Substance use disorder treatment retention and completion: a prospective study of horse-assisted therapy for young adults

Francesca Gatti⁴, Espen Ajo Arnevik^{1,2}, Espen Walderhaug¹, Edle Ravndal³, Ann Kern-Godal¹

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Study title: Substance use disorder treatment retention and completion: a prospective study of horse-assisted therapy for young adults.

Background: Keeping substance use disorder patients actively engaged in treatment is a challenge (Miller et al., 2006). Horse-assisted therapy (HAT) is increasingly used as a complementary therapy, with claimed motivational and other benefits to physical and psychological health (Hallberg et al., 2008; Selby et al., 2011; Fry et al., 2013).

Study aim and objectives: This naturalistic study aimed to assess HAT's impact on the duration and completion of treatment for young substance users at Oslo University Hospital.

Study design: Case-control study.

Study population and sampling: Patients enrolled in the study (n = 108) were divided in controls: patients receiving treatment as usual (n = 43) and case study: patients receiving treatment as usual plus HAT (n = 65).

Data collection methods and measures: Discharge and other data were derived from the Youth Addiction Treatment Evaluation Project (YATEP) database.

Data analysis methods: An intention-to-treat design, and univariate and multivariate analyses were used to compare those receiving treatment as usual (n = 43) with those who received treatment as usual plus HAT (n = 65).

Duration of study: 18 months.

Outcome/Results: More HAT participants completed treatment (56.9 vs 14 %, p < 0.001), remained in treatment for longer (mean 141 vs 70 days, p < 0.001) and had a significantly higher chance of completing their treatment than those not given the HAT program. Excluding time in treatment, and after controlling for the potentially confounding influence of age, sex, education, number and severity of substances used, psychological distress and number of temporary exits, the adjusted odds ratio for treatment completion was 8.4 in the HAT group compared with those not participating in HAT (95 % CI 2.7–26.4, p < 0.001).

In conclusion, the study found a statistically significant association between HAT participation and time in treatment, and between HAT participation and completion of treatment; adding supporting evidence for the development of this innovative therapy, and warrants investment in further research in relation to its inclusion in substance use disorder treatment.



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Discoveries from the Antipodes ~Achieving Balance

Exploring A Range Of Diverse Clinical Applications Where The Horses Are The Primary Therapists

Ms Jennifer Gibbons¹

¹*Horse Sense New Zealand, Otaki, New Zealand*

The presentation will explore a range of diverse clinical applications in a series of vignettes to examine the resilience of the transformation shifts that are found to occur, often very rapidly within a session. Horse Sense is a strength-based approach which uses a variety of interventions such as experiential learning, problem solving, social skills, and cognitive behavioural approaches. Short term interventions with lasting effects will be discussed.

Our application uses a spectrum of best practises and case examples will include;

~Helping a 13-year survivor of multiple forms of abusive and debilitating shame with debilitating anxiety and how the horse 'she sees' had the same story as her.

~A nursing mare reminded us of Erikson's stages of development for a 14-year old boy, who was either heading to jail, the gangs, or death.

~Evaluation for a court assessment with a 15-year old girl with Frank aka connection.

~Autophobia in a twin aged 19 and Tom aka uniqueness showed her, hers.

~A 25-year-old man with substance dependence and the horse/human herd connection.

~Complex grief disorder in a 50-year-old woman with Venus (love) and Hero (spirituality) denuding the 30-year old ache.

~PTSD, thought disorder and depression in a 60-year-old woman with strength stuck in the fence.

~Severe PTSD in a Vietnam veteran with debilitating guilt and Indi aka self-acceptance taking him down acceptance alley.

~2 mothers with complex trauma disorder, one helped by the praying horse and the other with 'her 550kg ballast'.

Achieving the balance is about the relationship - first and foremost with our herd, our human team and our clients. We work with the upper end of the therapeutic scale and achieve a 98% success rate using measurement and data collection. In the beginning our work was described as "The ambulance at the bottom of the cliff." (Judge Andrew Becroft current Children's Commissioner.) The majority of our funding is through Government agencies; Accident Compensation Corporation, Ministry for Vulnerable Children, Oranga Tamariki, The High and Complex Needs Unit, The Ministry of Health, and The Ministry of Education. We have presented and facilitated workshops in Norway, through Europe and in America.



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Summary 2 : Poster : june 2018: it' the 10th edition of the Rotary Handi Classic !

Madame marie paule rapenne¹, Delphine Rapenne

¹*Author, vandoeuvre les nancy, France*

june 2018: it' the 10th edition of the Rotary Handi Classic ! Since 2007, the children psychiatric hospital "Centre Psychothérapique de NANCY", in France, get sponsorship from the Rotary Club Nancy Emile Gallé: their cash donation allow us to create a festival with families of the hospitalised children: only children, working in therapeutic ponies sessions all year long, can take part on this festival with the young riders of the riding school. The day's aim is to work with the families: they see their children in a positive attitude, interacting with different children: we create teams with children from the psychiatric hospital and children from the riding school. We use structuration of Pony Games Sport to organize the afternoon: slalom, but also exercises for thought (jigsaw, riddle...), for manual skill (to throw a basket ball to score...), exercises to share (to make them change of ponies, relay slalom...). The Rotary Club Nancy Emile Gallé offers a little snack and gifts (souvenirs, ribbons, presents, carrousel tickets...) to each child. Working with this Club Service gives us a high media profile: politicians, TV news and local press come; broadcast of pictures on the Rotary Club network (international). Children and their families have better approved self-esteem. Children are congratulated in their schools; families work better with the professional hospital team. This festival brings together different people, aimed to share pleasure and funny moments. Each year, it's an original creation, adapting with different children, with different ages, and different pathologies; but also their own competences. The festival structuration is the end of weekly sessions, with individual work for hospitalised children. The professional team (doctor, nurses, teacher of children with special needs, psychologist...) note how the children are making progress, and get their therapeutic aims. See here some sessions, preparations and festival's photograph!



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A motivational intervention for psychiatric patients taking part in horse assisted activities as part of treatment

Prof. Marit Sørensen¹, Assoc. Prof. Marte Bentzen¹, Jeanette Kristiansen²

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Study title. A motivational intervention for psychiatric patients taking part in horse assisted activities as part of treatment.

Background and statement of problem Physical activity (PA) can counteract physical illness and enhance mental health and quality of life among patients with severe mental illness (SMI). However, there are challenges in transforming this knowledge into practice in psychiatric treatment, and patients are reported to lack motivation for physical activity.

Study aim and objectives The aim was to explore if a motivational intervention with horse assisted activities could affect motivation for physical activity, affects and symptoms.

Study design Other. Two-face, multiple single case design. A baseline was established for each participant before the intervention. Data were collected once a week. The baseline was then compared with the development during the intervention.

Study population and sampling. Patients admitted to a regional psychiatric hospital were offered horse assisted activities as part of their treatment. Those interested were given information about the study, and signed an informed consent form. Five patients dropped out due to discharge or being moved. Six patients completed the whole intervention with horse assisted activities twice a week two males and 4 females, age ranging from 21 to 33 years. They were diagnosed with schizophrenia or drug abuse with psychiatric complications.

Data collection methods and measures. Physical activity was registered by an accelerometer counting steps and minutes of movement of various intensities.

The intervention was based in Self Determination theory (Deci & Ryan, 2000). We measured perceived autonomy support, satisfaction of basic psychological needs, motivation regulation, affect (PANAS) as well as mental illness symptoms (HCL-10).

Data analysis methods. We used Simulation Modeling Analysis (SMA) for time-series, exploring effects of the variables studied between baseline vs intervention, creating individual profiles of development.

Duration of study 8 weeks

Results The results demonstrated large individual differences in how the profiles developed in all study variables. This personal centered approach probably capture a realistic picture of psychiatric treatment due to the different situations of the patients. The results will be presented and discussed in more detail.



Theme 10 – Physical Disability



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The effect of transverse plane in hipotherapy on pedes planovagi

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It might seem that pedes planovagi (also called pes planus, fallen arches or flat feet) is unrelated to hipotherapeutic therapy. However, our experience prove that horse back movement is able to positively affect this abnormality. Nevertheless, it is crucial to correctly diagnose the cause of pedes planovagi and to choose the proper horse for the hipotherapeutic therapy - with the dominance of transverse movement of back while walking. In the absence of proper transverse movement, lateral pelvis stabilization system is inactivated instead and this let to dysfunction of instep. We conducted a trial study with 10 children. These children had very different diagnoses but all of them suffered by flat feet with the same functional cause. To evaluate the severity of pedes planovagi, we used method of video analysis and feet sketching analysis. The results were analyzed by swatch - analysis. Our results show that seven weeks long intensive hipotherapeutic therapy positively affects pedes planovagi of all children from the tested group



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Hippotherapy for patients with multiple sclerosis (MS): A multicenter randomized controlled trial

Marion Drache¹

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Hippotherapy as a complementary treatment can be defined as one-patient-one-horse physiotherapy treatment with and on the horse. The primary goals of hippotherapy are regulating muscle tone (reduction in spasticity) and breathing, strengthening the torso muscles, improving balance control and coordination, as well as gait.

This study provides class 1 evidence that weekly hippotherapy plus standard care in comparison with standard care alone improves balance fatigue, spasticity, and quality of life in multiple sclerosis (MS) patients.

Trial design: The study was a prospective, randomized, examiner-blinded, multicenter, comparative trial with an allocation of 1:1 to the two groups: hippotherapy plus standard care compared to standard care alone. The intervention lasted for 12 weeks. The study was conducted at five sites in Germany, all of which have hippotherapy experience as stipulated by the rules of the Deutsches Kuratorium für Therapeutisches Reiten e.V. (DKThR). The principles of good clinical practice (GCP, ICH E6) and data protection laws were applied.

Objective: To investigate the effect of hippotherapy plus standard care versus standard care alone in MS patients.

Methods: A total of 70 adults with MS were recruited in five German centers and randomly allocated to the intervention group or the control group. Primary outcome was the change in the Berg Balance Scale (BBS), and further outcome measures included fatigue, pain, quality of life, and spasticity.

Results: Covariance analysis of the primary endpoint resulted in a mean difference in BBS change of 2.33 (95% confidence interval (CI): 0.03–4.63, $p = 0.047$) between intervention ($n = 32$) and control ($n = 38$) groups. Benefit on BBS was largest for the subgroup with an Expanded Disability Status Scale (EDSS) ≥ 5 (5.1, $p = 0.001$). Fatigue (-6.8 , $p = 0.02$) and spasticity (-0.9 , $p = 0.03$) improved in the intervention group. The mean difference in change between groups was 12.0 ($p < 0.001$) in physical health score and 14.4 ($p < 0.001$) in mental health score of Multiple Sclerosis Quality of Life-54 (MSQoL-54).

Conclusion: Hippotherapy plus standard care, while below the threshold of a minimal clinically important difference, significantly improved balance and also fatigue, spasticity, and quality of life in MS patients.



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Effects of therapeutic riding on gait-speed, balance and coordination - A randomised controlled trial of patients with multiple sclerosis.

Master in Physiotherapy Mette Thomasberg Kobborg¹

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Study title

Effects of therapeutic riding on gait-speed, balance and coordination - A randomised controlled trial of patients with multiple sclerosis.

Background and statement of problem

Multiple sclerosis (MS) is a chronic, neurological disease, usually leading to an early disablement. Exercise therapy is an important part of treatment in patients with MS (PWMS). In Denmark therapeutic riding (TR) is used as exercise therapy for PWMS, although data about the effect is limited. The aim of this study was to determine the effect of one intervention of TR to PWMS on gait-speed, balance and coordination compared to one intervention of ball exercises.

Study design

Randomized controlled clinical trial

Study population and sampling

The study was conducted at the Sclerosis Hospital in Ry, Denmark. The participants were diagnosed with MS and were able to walk independently.

Data collection methods and measures

The study was conducted as a double-blinded randomised controlled trial (RCT). Patients were randomly assigned to one intervention of TR or one intervention of ball exercises. Before and after the intervention two outcome measures were applied: the six spot step test (SSST) and the 10-metre walk test (10mWT), and the patient reported effect of the intervention was obtained.

Data analysis methods

The difference between groups is compared using the unpaired t-test, and if relevant a sensitivity-analysis using the Mann-Whitney-U test. The patients reported outcome is reported in percentage.

Duration of study

August 2013 - March 2015



Outcome/Results

52 PWMS were included in the study. There was a statistically significant improvement in the group that underwent TR compared to the control-group measured by the SSST (difference 2.9 sec., 95 % CI 0.6 to 5.1, $p = 0.02$). No statistically significant change was measured by the 10mWT. Patients reported a larger effect in the TR-group. The results of this study show that one intervention of TR can improve gait-speed, balance and coordination ability of PWMS compared with one intervention of ball exercises. The findings are in line with recent literature, though evidence is limited and additional studies on the effects of TR on PWMS are needed.



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The Effects of Hippotherapy on Chronic Low Back Pain

Ms Margaret Walsh²

¹Association Of Chartered Physiotherapists In Therapeutic Riding and Hippotherapy, Galway, Ireland, ²Irish Society of Chartered Physiotherapy, Galway, Ireland

Study Title

The Effects of Hippotherapy on Chronic Low Back Pain: A Single Case Study

Background

The American Hippotherapy Association (A.H.A.) (2016) defines Hippotherapy as a term that refers to the use of the movement of the equine as a strategy by, Physical Therapists, Occupational Therapists and Speech and Language Therapists to address impairment, functional limitations and disabilities in patients with neuromuscular dysfunction. This strategy is used as part of an integrated treatment programme to achieve functional outcomes.

Evidence for the use of Hippotherapy as treatment in musculoskeletal disorders has been limited due to the dearth of research.

Objectives

The objective of this study was to examine the effect of a six week course of Hippotherapy on a patient with Chronic Low Back Pain (CLBP) with particular regard to pain, range of motion and disability.

Study Design

A single case study.

Study Population

A single case study involving a 41 year old female patient with sedentary occupation.

Study Duration

Treatment was carried out once weekly for six weeks, each session of thirty minutes duration. Treatment consisted of relaxation and breathing exercises, stabilising exercises and arm and trunk movements recruiting the core and maintaining balance. A follow-up assessment was conducted six weeks after the final treatment session in week 12.



Data Collection

The Visual Analogue Scale (VAS) was used to score pain pre and post treatment in weeks 1 and 6 and at the follow-up in week 12. Oswestry Disability Questionnaire and Modified Schrober's Index were scored and measured in weeks 1, 6 and 12.

Data Analysis Method

Statistical Analysis was not required for a single case study.

Results

Results were found to be a consistent reduction, with pain having an overall reduction of 50%. Minor changes were observed in range of motion, but there was no change in Oswestry.

In conclusion, pain was reduced and postural awareness was enhanced but disability score remained unchanged.



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Fundamental Movement Skills form the basis for future sport skill development and for the life-long enjoyment of physical activity.

Program Director Jo-Anne Chevalier¹

¹*Northern Lights Therapeutic Riding Association, Val Rita, ON, Canada*

Fundamental movement skills are paramount to the development of more advanced and sport-specific skills. Athletes who have not learned how to perform the fundamental movement skills correctly will have difficulty continuing their development in sport. Therapeutic Riding Coaches of all levels need to have the ability to identify, observe, and instruct the fundamental movement skills to ensure the continued development of their athletes.

Coaches of athletes aged 6 to 9 in particular should include the development of all fundamental movement skills as a key component of their training plan as these are the key ages for the development. In developing and teaching a child, we break down simple skills into key components to help the child learn and understand. Physical literacy is the ability for an individual to move competently and confidently in all types of environments -- it is the literacy of movement. The key components of physical literacy, the letters and words, if you will, are the fundamental movement skills! When a child is confident and competent with the fundamental movement skills, they can develop sport-specific and complex movement skills that allow them to enjoy sport and physical activity. Most importantly, having a firm grasp of the fundamental movement skills and being physically literate leads a child to enjoy a long life of physical activity.

Not sure where to stand to watch a child throw, or how to instruct a child to improve their running form? This workshop will teach you how to instruct, observe, and correct the fundamental movement skills, and give you plenty of opportunity to practise teaching these skills.

The NCCP Fundamental Movement Skills are:

Throwing Catching Jumping Striking, Running, Kicking Agility, Balance, and Coordination

Course Outcomes:

- Analyze and identify the various stages of development for the fundamental movement skills;
- Apply a six-step process to teaching the fundamental movement skills;
- Create safe games where children can practice fundamental movement skills.

Coaches must be 16 or older to access NCCP multi-sport training in Ontario.

Learn to teach the Fundamental Movement Skills with this National Coaching Certification Program a 4 hour Fundamental Movement Skills Professional Development Workshop!



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It's never too late – improving function several years post Traumatic Brain Injury (TBI): 2 case studies

Prof Dorothée Debuse¹

¹*Lunex University, Differdange, Luxembourg*

Background and statement of problem: There is increasing evidence that rehabilitation following TBI is effective, i.e. results in better function than no intervention/natural recovery (Hayden et al., 2013). There also is evidence that recovery is better with rehabilitation within the first six months of TBI, than if rehabilitation is initiated later in the recovery process, but that rehabilitation interventions are still effective even if delivered after 12 months of injury (High, Roebuck-Spencer, Sander, Struchen, & Sherer, 2006; Micklewright, Yutsis, Smigielski, Brown, & Bergquist, 2011)

Study aim and objectives: To evaluate the effects of hippotherapy on two clients two or more years post TBI.

Study design: Two single case reports

Study population and sampling: One 17-year-old nine years post ABI and one 41-year-old two years post TBI (GCS 1!) who attended hippotherapy sessions in rural England.

Data collection methods and measures: Outcome measures were: time to onset of backwards propulsion (secondary to talking), functional mobility and participation, and right upper limb fine motor skills, and symmetry on and off the horse, functional mobility, and left upper limb function, respectively. All relevant activities were video-recorded and, if appropriate, timed.

Data analysis methods: Goals were set according to what mattered to these clients, and not necessarily amenable to being captured by validated outcome measures. Video analysis before and after hippotherapy was undertaken and movement analysed. Self-reported functional ability and participation was documented and analysed.

Duration of study: 14 weeks and 16 weeks, respectively.

Outcome/Results: Both clients improved considerably within their own goals and abilities following 12 and six hippotherapy sessions, respectively.

The 17-year-old had no more episodes of backwards propulsion when talking, her functional mobility and participation improved considerably, as did her right upper limb fine motor skills. The 41-year-old had much



improved balance and symmetry, her functional mobility improved as she was able to walk without aids or help in the dunes, and she was able to use a hair-dryer again for the first time since her accident.



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Is it all in the saddle? A case report on an adult rider with cerebral palsy over 10 years

Prof Dorothée Debuse¹

¹*Lunex University, Differdange, Luxembourg*

Background and statement of problem: In hippotherapy the client's seat is considered a key factor allowing the transmission of movement impulses from the horse onto the rider (Tetzner & Debuse, 2015). Much emphasis is placed on a good seat and how to use it in different schools of dressage, too (Carl, 2009; Miesner, Putz, & Plewa, 2005; Ritter, 2010). However, in many people with a disability who are also sport riders are not able to achieve an ideal seat. This is not only likely to affect their balance, it can adversely affect their ability to influence the horse.

Study aim and objectives: To explore to what extent different saddles affect the seat and riding ability of an adult rider with cerebral palsy.

Study design: Case report

Study population and sampling: One adult rider was followed and her seat and riding ability (hacking and dressage) with different saddles assessed over a 10-year period.

Data collection methods and measures: The rider reflected on her own riding ability; photography and video of the rider with different saddles (all on the same horse) were used as 'objective markers' and to better understand her subjective experience.

Data analysis methods: Qualitative analysis of the rider's reflexions in relation to her own seat and riding ability at different time points in relation to saddle use and her own physical health/ability was undertaken and compared with the photographic/video evidence.

Duration of study: 10 years

Outcome/Results: Different saddles have had a considerable impact on the rider's comfort, muscle tone, pelvic position, balance, and ability to influence the horse, i.e. riding ability. In spite of the much straighter leg position which challenges her limited abduction, this rider's ability to influence her horse (as well as her comfort) are greatest with a dressage saddle with relatively soft knee rolls. While a treeless saddle with memory foam seemed to reduce her muscle tone, it also took her centre of gravity away from the horse's



which adversely affected her balance and effective influence via her seat. She is currently working on travers in walk and trot and on the piaffe.



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Hippotherapy in the Rehabilitation of Patients after Traumatic Brain Injury in the Murnau Trauma Center

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¹Murnau Trauma Center, Murnau, Germany

After severe brain injury affected individuals usually suffer from restrictions in numerous skills and activities. After acute care they start with extended rehabilitation and present with a combination of symptoms such as palsy, ataxia, spasticity and disorders in coordination. These motoric deficits are often combined with fatigue, cognitive deficits (lack of orientation, concentration, memory a.o.), pain or depression. In this situation, the rehabilitation team is confronted with patients, who in many cases don't understand or accept their current situation and the necessity of therapeutic intervention. In addition they can't convert the therapeutic instructions due to the mentioned symptoms. Perception of the own body and his position in the room as well as the perception of the surroundings and the abilities to react adequately are disturbed.

Hippotherapy enables a connection of movement of the patient and of the especially trained horse. A two-way feed-back, guided by the hippotherapist, enables the nervous system to relearn the physiological motion.

In the Neurorehabilitation in the Murnau Trauma Center, hippotherapy is part of the therapeutic offer. Adult patients with different severity of brain injury attend regularly physiotherapy on the horseback. Two days a week, this special therapy is offered by two therapists with DKThR education in the national stud in Schwaiganger. Two Bavarian crossbred horses, a gelding and a stallion with special education are available. The indication is set by the responsible physiotherapists and physicians in the hospital. Afterwards, the hippotherapist visits the patient for a diagnostic exploration. Each patient participates usually once a week. The especially educated horses are guided with long reins. A special ramp enables the patient's transfer on the horse back even with severe ataxia, paraplegia or hemiparesis. Therapists use different aids like wedges, pads or saddle.

We observe improvement in trunc mobility as well as trunc control, flexibility and muscular activity.

Spasticity is reduced during the therapy and several days after, which facilitates the in-hospital therapies. Additionally, hippotherapy improves mood and motivation in nearly all the patients.



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CORRECTION OF PELVIC SOMATIC DYSFUNCTIONS IN CHILDREN OF 7-10 YEARS WITH THE HELP OF EQUINE THERAPY AND OSTEOPATHY.

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Many physicians have noted that postural changes, and in particular, somatic dysfunctions of the pelvis in children of 7-10 years begin in the first year of school. Our experience has shown that primary osteopathic examination of children of primary school age detects certain somatic dysfunctions of the pelvis in almost 90% of children. Pelvis is the center of movement, and work with pelvis in osteopathy is of primary importance. This study was conducted to see which pelvic dysfunctions can be effectively corrected by:

1. using hippotherapy without osteopathic treatment
2. using hippotherapy with simultaneous osteopathic treatment.

The purpose of the study.

To prove higher efficiency of osteopathic correction of pelvic somatic dysfunctions in children of 7-10 years when conducted together with hippotherapy.

To prove the possibility of correcting some of the pelvic somatic dysfunctions with the help of hippotherapy alone.

Objectives of the study.

1. To form three groups of 15 children of 7-10 with at least one year at school, to diagnose all children osteopathically.

I group: children receiving osteopathic treatment.

II group: children receiving hippotherapeutic treatment.

III group: children receiving both hippotherapy and osteopathic treatment

2. To develop a plan for hippotherapeutic sessions.

3. To conduct general osteopathic correction of children of the First and Third groups.

4. To hold a cycle of hippotherapy sessions for children of the Second and Third groups.

5. To evaluate the effectiveness of correction of somatic dysfunctions of the pelvis by osteopathic treatment in conjunction with hippotherapy sessions and the effectiveness of correction with the help of hippotherapy alone.

Calendar of treatment.

I group: 5-6 osteopathic sessions at intervals of 2-3 weeks.

II group: 15 sessions of hippotherapy of 30 minutes 2 times per week.



III group: hippotherapy sessions 2 times a week, 15 sessions of 30 minutes, and 4 sessions of osteopathic treatment, held every 2 weeks.

Evaluation of the results.

Hippotherapy can correct some pelvic dysfunctions without osteopathic treatment.

The effectiveness of osteopathic treatment is significantly increased in conjunction with hippotherapeutic treatment, which is manifested in shorter need of osteopathic treatment and prolongation of the effect of treatment.



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The Effects of Hippotherapy on a Riding Instructor following Back Surgery: A case Report

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Susan March RPT , Executive Director Bit-By-Bit Medical Therapeutic Riding Center, Registered PATH International Riding Instructor, AHA Registered Therapist.

ABSTRACT

Susan March RPT , Executive Director Bit-By-Bit Medical Therapeutic Riding Center, Registered PATH International Riding Instructor, AHA Registered Therapist

The Effects of Hippotherapy on a Riding Instructor Following Back surgery: A Case Report

There are a significant number of back injuries in the general public with a higher rate documented for Riding Instructors. According to the BLS (Bureau of Labor and statistics), in 2015 musculoskeletal disorders (MSDs) such as sprains or strains resulting from overexertion in lifting accounted for 31 percent (356,910 cases) of the total cases filed. Therapeutic Riding Instructors have a high incidence of serious and/or chronic back injuries as reported in several research papers. This case report aims to document the effects of hippotherapy on a riding instructor who underwent back surgery but continued to have severe pain following surgery which limited both her ability to work as a riding instructor as well as train and ride horses. Data was collected from the client and her physical therapists' reports and interviews. After four sessions of physical therapy in a one month time period which incorporated hippotherapy, the client demonstrated a significant improvement in strength, mobility, and a decrease in pain. She was able to resume most of her activities from before her surgery including horseback riding and working as a Therapeutic Riding Instructor.

Conclusion: Hippotherapy may be a new tool for physical therapists to consider when treating back pain in their patients.

Keywords: Therapeutic Riding Instructor, Back injury, Hippotherapy



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The effect of 12 weeks Equine Assisted Therapy trial to patient's low back pain and muscle activity

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Background and statement of problem

The orthopedic hippotherapy presents a new form of therapeutic exercise in the conservative treatment of segmental instabilities. Muscle activity imbalance is a common cause or reason of chronic low back pain.

Aim and objectives

Can Equine movement facilitate symmetrical muscle activity in human lumbar and abdominal area in walking and/ or on horseback? Can 12 weeks trial of EAT change the experience of pain and client's self-perception of performance in everyday living.

Aim was to create a new rehabilitation method under best practice conditions for Chronic low back pain clients in two different locations in Finland.

Study design

The study was conducted as a multicenter study. The study was done in a collaboration with local hospitals, the patient were chosen using criteria given by researcher and accepted by Ethical committee.

The study was designed to serve clinical practice, to be easily repeated and get basic information of equine movement to the patient itself, therapist and researcher pre and post of the trial.

Study population and sampling

Local regional hospitals selected patients with low back pain using given criteria of inclusion to three different groups having four patients in two cities ($n = 4 \times 3 \times 2 = 24$).

Data analysis methods

Two-sample K-S test is used to analyze the data with logarithm changes. The significance is tested with ANOVA, The results are moved to SPSS 22 program for further processing.



Duration of study
10.8.2016 – 20.6.2017

Outcome/ Results
Analysis of the results is under work



Equine Assisted Activities and Therapies in patients with physical disabilities. A Systematic Review and Meta-analysis

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Objective: Equine-assisted activities and therapies, such as therapeutic riding and hippotherapy, are believed to have positive physical and emotional effects in individuals with neuromotor, developmental, and physical disabilities. The introduction of sports as a form of therapy in the early formative years may also have a significant impact on accelerating the rehabilitation of individuals suffering from such forms of neuromotor, developmental, and physical disabilities. The purpose of this review was to determine whether therapeutic riding and hippotherapy improve balance, motor function, gait, muscle symmetry, pelvic movement, psychosocial parameters, and the patients' overall quality of life.

Design: A literature search was conducted on MEDLINE, CINAHL, MBASE, SportDiscus, Cochrane Database of Systematic Reviews, Cochrane Controlled Trials Register, PEDro, DARE, Google Scholar, and Dissertation Abstracts. Only studies with a control/ comparison group or self-controlled studies performing pre intervention and post intervention assessment were included. Excluded were (1) studies not providing data on baseline score or end-point outcome, (2) single-subject studies, (3) studies providing only qualitative data, and (4) studies that used a mechanical horse. Sixteen trials were included. The methodological quality of each study was evaluated using Downs and Black quality assessment tool.

Results: Most of the studies showed a trend toward a beneficial effect of therapeutic riding and hippotherapy on balance and gross motor function. The meta-analysis showed improvement in both the Berg Balance Scale and the Gross Motor Function Measure in therapeutic riding and hippotherapy programs.

Conclusion: Programs such as therapeutic riding and hippotherapy are a viable intervention option for patients with balance, gait, and psychomotor disorders.



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Therapeutic effects on balance of equine-assisted therapies in children with neuromuscular disorders

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Introduction: Equine assisted therapies (EAT) are exercise therapies that could have positive physical and emotional effects. Because horseback riding rhythmically moves the rider's body in a manner similar to a human gait, riders with physical disabilities often show improvement in flexibility, balance, function muscle strength posture, mobility and walking energy expenditure.

Purpose: To evaluate the effectiveness of EAT in balance of children with motor deficits due to neurological-muscular diseases.

Material & Method: We applied an equine assisted therapy program lasting 14 weeks, with one session per week lasting 40 minutes each, in 31 children with neuromuscular diseases, aged 4 to 18 years. An evaluation of functional balance with the Pediatric Balance Scale (PBS), static balance with force platform (Win-track gait analysis plate), Intelligence Quotient with Wisc III and functional classification with GMFCS were performed. The measurements for PBS were made before the beginning of the intervention, in the middle (7 weeks) and at the end of the last session of the EAT intervention (14 weeks) for each child. The measurement for the force platform were made just before and after the EAT intervention.

Statistical analysis: Sample characteristics were compared between groups using ttest and x2 test. Pre- and post-intervention values were compared within groups using pair ttests and also using a multiple linear regression adjusting for possible confounders (sex, age, GMFCS, WISC III). Time series analysis was used for the PBS based on single and multiple linear mixed-effects models with individuals as random effects.

Multivariate models were adjusted for sex, age, assessment based on the WISC III and the GMFCS level. The comparison for each GMFCS level was made using the Wilcoxon signed rank sum test.

Results: There was improvement ($p < 0.05$) in functional balance of all children who participated in the program. In particular, there was a gradual increase in the score of PBS in relation to the timing of the program. There was also statistical significant result ($p < 0.05$) in the average pressure of each foot in static balance.

Conclusion: Equine assisted therapy program is an appropriate and effective therapeutic intervention for the rehabilitation of children with neuromuscular diseases



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Equine assisted interventions as support for everyday function and activities

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Study title

Equine assisted interventions as support for everyday function and activities

Background and statement of problem

Neurological disorder often leads to problems in the everyday living (Neuroförbundet, 2015). Studies have shown that equine assisted interventions can have a positive impact for the target group (Alexandra Stergiou et al, 2017; Muñoz Lasa et al, 2015).

Study aim and objectives

The aim of the study was to investigate the effects of equine assisted interventions according to the participants experienced health and quality of life in order to get a deeper understanding of the meaning of the interventions for everyday function and activities

Study design

The study was conducted as a prospective longitudinal mixed method study.

Study population and sampling

The study population for the intervention group was 15 individuals with neurological and/or other physical or psychological disorders. The control group consisted of 284 individuals with neurological disorders. The inclusions criteria; adults with neurological disorder; be able to sit on the horse with maximum two helpers at each side of the horse; fit the weight-limit of the actual horses and be a member of the association Neuroförbundet. Participants were recruited via local rehabilitation clinics or via their own contact. The participation was voluntarily. The control group were collected via web based questionnaires to a geographical sample of members of Neuroförbundet.

Data collection methods and measures

The data was collected prior entering the intervention; at 6 respectively 12 months after start using validated self-rated questionnaires on health and everyday function including a special designed questionnaire with open ended questions regarding goals and experiences. Data from Primary endpoints



were participants' self-rated health (EQ5D & EQ VAS); secondary endpoint was participants' perceived value of every day occupations (OVal-pd 26).

Data analysis methods

The change over time will be analyzed within each group using the Wilcoxon signed rank test. The change over time will be compared between the groups using the Wilcoxon rank sum test.

Duration of study

The study ran from fall 2013 until end of 2015. The intervention lasted for a year/participant

Outcome/Results

Results are being processed and will be presented at the conference.



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Developing the Functional Horseback Riding Scale for Individuals with Disabilities

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Background

There is a need to assess rider's current functional status on horseback and document the change over time in a hippotherapy/therapeutic riding program.

Study objectives

There were 2 study purposes: 1) to develop the functional horseback riding scale and examine the content validity; 2) to track riders' function change over an 8-month period.

Study design

In part 1, the draft scale was developed by the researcher and reviewed by 2 groups of panel experts. In part 2, longitudinal data was collected from all riders in the Therapeutic Riding Centre of Taiwan for 3 times with a 4-month interval.

Study population

All riders entered either hippotherapy or therapeutic riding programs from February to October, 2017.

Data collection methods

In part 1, the scale was reviewed by the panels. Suggestions and modifications were collected and the scale was revised twice. In part 2, participants were assessed by both their instructors/therapist and the researcher. If there was any incongruence between their assessments, a discussion occurred to reach a consensus.

Data analysis methods

Descriptive statistics.

Duration of study

Eight months.



Outcome/Results

In part 1, there were 2 main categories in the final scale: 1) hippotherapy and vaulting and 2) therapeutic riding, each contained 9 and 16 levels respectively.

In part 2, a total number of 89 participants were assessed. The most common level in the hippotherapy category was H5, which represents rider can sit astride with both hands holding handles while 2 sidewalkers secure the pelvis and lower limbs. The most common level in the therapeutic riding category was R5, which represents rider can walk the horse around the arena while the instructor walking besides the rider. Among all participants, 141 sets of scores of changes were gathered. During the 4-month interval, 66% showed no change, 6% showed regression, and 28% showed improvement in the riding levels.

The preliminary results showed that the functional horseback riding scale could track riders' long-term changes. We found that riders' riding functions were influenced by several factors. Further cross-cultural study is warranted to examine the applicability of the scale to riders in other centers or countries.



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Working with Persons with Vestibular Disorders

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People with vestibular disorders have special needs that must be addressed when they are on a horse. The significance of the balance disorder, vertigo, and oscillopsia, "jumping vision," as well as other complications of vestibulopathy directly affect the quality of the riding or therapy session. This presentation will be given by a college professor with complete bilateral vestibular loss who has participated in hippotherapy and therapeutic riding sessions. Horse choice, session activities, and special accommodations and considerations that must be made when working with persons with vestibular disorders will be discussed .



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Tackling Torticollis within a Therapeutic riding program for a client with generalized muscle weakness

Mrs Jill Shelton¹

¹Novita , Regency Park, Australia, ²Northern Area Riding for Disabled, Adelaide, Australia

R presented as a child with congenital muscle weakness, with no unifying diagnosis despite extensive investigation. He had bilateral subluxed hips and multiple mild contractures that responded to early splinting . He had a persistent torticollis that did not respond to conservative treatment. He has no intellectual difficulties.

A Therapeutic riding program was proposed pre and post operatively to address the need for generalized strengthening when there was a resistance to more traditional Physiotherapy activities.

The poster presents the success of this intervention in addressing the primary aims of increasing strength and Range of movement while being mindful of, and enhancing the the general well being of the child.



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Long-term effect of simulated horseback riding exercise for chronic low back pain: A Randomized controlled clinical trial

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Background and statement of problem: A simulated horseback riding (SHR) exercise is effective for improvements of pain intensity, functional disability and fear-avoidance beliefs, but its comparative effectiveness with other exercise is unknown. In addition, little is known about the effectiveness of exercise for perceived mental and emotional improvements in people with chronic low back pain (cLBP)

Study aim and objectives: The aim of this study was to determine whether a SHR exercise is non-inferior to stabilization exercise for people with chronic low back pain

Study design: Randomized control trial, non-inferiority trial, repeated measures design

Study population and sampling: People with cLBP who fulfilled inclusion and exclusion criteria of the study. This study was powered for assessing non-inferiority of SHR exercise compared with STB exercise. With a sample size of 24 participants in each group, a two-sided t-test and 5 % significance level, the study would have a power of 80 % to detect non-inferiority with a pre-defined non-inferiority margin. Assuming a dropout rate of around 10 %, we included 48 participants.

Data collection methods and measures: The study includes 8 week exercise and 6-month maintenance phase. Outcomes were measured at baseline, 4, 8 weeks and 6 months.

Data analysis methods: For all outcomes measures, testing for group differences was two-sided with significance level 0.05, based on the result of ITT analysis.

Duration of study: Participants were recruited from November 2016 to May 2017. Follow-up measure was completed in November 2017.

Outcome/Results: At 8 weeks, improvements in functional disability (mean change within group, -0.72 [95% CI, -8.28 to 6.83]) and pain intensity (mean change within group, -0.26, [95% CI, -1.39 to 0.87]) for SHR exercise was non-inferior to that for stabilization exercise. For fear avoidance beliefs, the work subscale scores of the FABQ in SHR exercise group showed significant improvement at 4 weeks ($P = 0.045$). At 8 weeks and 6 months, both the physical activity and work subscale scores of the FABQ decreased in both exercise groups, although not significantly.



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The RDA Carriage Driving Tracker: a tool enabling the systematic review of outcomes for beginner and experienced drivers

Ms Denise Robertson¹

¹Rda UK, Warwick, United Kingdom

Study title: The RDA Carriage Driving Tracker: a tool enabling the systematic review of outcomes for beginner and experienced drivers

Presentation type: Oral

Theme: Evaluation

Author: Denise Robertson. RDA UK. Head of Therapy

Background and statement of problem: Although carriage driving has been offered by RDA UK since 1975, there has been no systematic review of outcomes for drivers. Most Groups do not have easy access to a professional therapist able to apply standard tests to assess the therapeutic benefits for individual drivers.

Study aim and objectives: A survey method had to be devised that:

- could be used by non-therapists, including driving coaches and other stakeholders
- was low cost, with the convenience of being IT based as well as easy to use
- was holistic, including hard and soft outcomes
- enabled the driver to engage with their evaluation
- produced results readily understood by drivers and other stakeholders
- related to the RDA Outcomes Tracker for therapeutic riding, which many coaches are already trained to use

Study design: Systematic review. Graduated outcome assessment criteria were compiled by a panel of therapists and others. Two assessments, at the start of the carriage driving and at its close, are undertaken by the same pair of trained assessors. Their jointly agreed scores are fed into a secure website for amalgamation with others and subsequent review. Feedback from the Tracker, quantitative and qualitative, is used to enhance the participant experience and improve the tracking tool.

Study population and sampling: adult beginner and experienced drivers.

Data collection and measures: 2 assessors observe drivers in six assessed areas. Scores from 1 to +5 are attributed by matching what is observed against a series of 5 graduated outcome statements and entered into a Tracking app.

Data analysis methods: 2 sets of assessment scores give a 'before and after' data snapshot providing a picture of the driver's journey with RDA. Feedback from stakeholders is subject to thematic analysis.

Duration of study: 12 weeks

Outcome/Results: The carriage driving Tracker is being trialled; results should be available for conference.



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The short-term effect of a horse's walk gait on the coordination of handicapped people

Mrs Zoltanne Gyorgypal¹

¹*Magyar Lovasterapias Szovetseg, Balogunyom, Hungary*

We investigated the coordination related performance of 7 handicapped people. 3 patients had CP and 4 traumatic brain injury diagnosis. 4 patients were able to walk, 3 patients were wheelchair riders. 4 of them went through hippotherapy, 3 of them took part in para sport (Grade I) – they were riding in walk. They spent 20-30 minutes weekly with riding through 10 weeks.

At each occasion we recorded 3 measurements: before getting on the horse, immediately after riding, and 10 minutes adaptation time later. We examined 4 tests with the wheelchair riders, and 4+2 tests with the patients able to walk. The poster presents the tests, and shows the results of the measurements by different graphs.



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Does horse assisted therapy improve people with intellectual disabilities? An initial intervention for users with physical disability?

Mr. Carlos Ganzabal Cuena¹

¹*Iponey Riding Schools, Getxo, Spain*

Project development. During 10 sessions with CAD users we dedicate ourselves to work the personal autonomy of the people, through the guidelines and routines of hygiene of preparation of the horse, the knowledge of the animal, the management and guide of the horse, to know the equestrian facilities. The first contact was realized in a group way and later it was individualized, encouraging a more personal interaction with the user, this way to be able to attend better to its needs and pace of learning. The users were approaching in an individual way the horse to have the time and the space to take charge of its care and hygiene. As the enjoyment of being in contact with the horse.

Sessions planning.

SCHEDULE

DESCRIPTION

- 1- INTRODUCTION TO THE WORLD OF THE HORSE.
- 2 - EQUESTRIAN AND MATERIAL ROUTINES.
- 3 - WHAT IS A HORSE.
- 4 - WHAT DO THEY EAT THE HORSES.
- 5 - HOW THE HORSE MOVES.
- 6 - DRAMATIZATION: "SOY UN CABALLO" GONZALO MOURE.
- 7 - .GUIDED FOOT-TO-GROUND CIRCUIT I.
- 8 - "The Goose-PONY game."
- 9 - GUIDED FOOT-TO-GROUND CIRCUIT II.
- 10 - "LAST DAY ENDING PARTY"

Conclusions. As the days and meetings were happening it was observed on the part of the equine therapist as the proper monitors of the center a major knowledge and enjoyment of the activity. A more motivating attitude of the users being observed to the horse, a major confidence in they themselves with regard to the horse, many desire of working along with the horse.

The benefits of the project "moving along the horse", were the following; the integration and standardization of people users, the sensory stimulation, the improvement of the autonomy and self-esteem, improvement in the communicative capacity non-verbal and improvement in the processes affective emotional.

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Practical Finnish riding group therapy interventions in Salo by physical therapist Sanna Järvelä

Sanna Järvelä¹, Sanna Mattila-Rautiainen², Anne Rokka³, Hanna Huttunen⁴

¹SJ Talli, Halikko, Finland, ²University Of Eastern Finland, Kajaani, Finland, ³Equine College Hevosopisto, Ypäjä and Salo, Finland, ⁴T:mi Fysio- ja ratsastusterapia Sanna Mattila, Kajaani, Finland

Group

Practical part of the interventions in Salo in Multiple Center research, Finland: Sanna Mattila-Rautiainen, The effect of 12 weeks Equine Assisted Therapy trial to patient's low back pain and muscle activity

Background before interventions

Contacts and meeting with hospital. Creating the marketing materials and an exercise programme for intervention.

Duration of the group

10.8.2016 – 20.6.2017

Population of the group

11 female patients divided in In three groups that met 12 times.

Group design and practice

Horse and tack selection. Progressively increasing time on horseback. Also horse care and stable work were included in every session. Questionnaires sent by the researcher were given and collected. Also VAS (Visual Analogue Scale) was collected before and after every riding session from the patients.

Home exercises were practiced under supervision of physical therapists and controlled on 7th therapy session.

Horseback exercises were designed to strengthen and balance muscle activity and finding the normal movement and flexibility of the body in order to improve balance and symmetry and to help reduce back pain. Also breathing techniques and relaxation were practiced. It was important to find the optimum position on the horse back for the participants.

Individual horse selection and right tempo for each patient was one of the most important things during the study.

Individual level and therapy method EAT results

Experiences of changes in daily living activities for the patients.



As the measures were carried out in the beginning of the study the participants were able to see and get feedback from 10 meters walk and riding posture in iPad from the therapist.

The researcher provided the therapist with results from first measurements of muscular activity during 10 meters walk and riding. Electromyography (EMG) analysis were simplified and worded for both the therapist and the patient. With the Information from EMG and video the patient could more easily understand the instructions from the therapist. The Therapist could utilize the video and EMG to explain posture problems on the horseback individually.

EAT method as a group rehabilitation is going on in Salo. New contracts have been made for two years.



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Understanding and Balancing Knowledge with Treatment of SMA Type II

Mrs M.J. (Jenny) Collings¹

¹Cprth And Rda, Salisbury, Wilts, United Kingdom

Not understanding the full implications of how Spinal Muscular Atrophy Type II (SMA Type II) may respond to movement on an equine can have adverse effects. The author's experience of treating children with the condition has shown that Hippotherapy can have beneficial effects not only on postural control, but on the psychological, social and emotional wellbeing of the rider and their family.

This paper explains why the author believes only Physiotherapists qualified in Hippotherapy should oversee children with SMA Type II. They have a deep understanding of the muscle involvement; an awareness of body mechanics and the psychological aspects of a deteriorating condition. With this knowledge; a full awareness of the complexity of SMA Type II and a planned exit, they can help the rider blossom.



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COPM (The Canadian Occupational Performance Measure) in back pain by occupational therapist Hanna Huttunen

Hanna Huttunen¹, Sanna Mattila-Rautiainen², Anne Rokka³, Sanna Järvelä⁴

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³Equine College Hevosopisto , , Finland, ⁴SJ Talli , , Finland

Study Title

COPM (The Canadian Occupational Performance Measure) in Multiple Centers of the research, Finland: Sanna Mattila-Rautiainen, The effect of 12 weeks Equine Assisted Therapy trial to patient's low back pain and muscle activity.

Aims of COPM

The COPM is a standardized client-centred assessment to enable individuals to identify everyday issues that restrict or impact their performance in everyday living.

The aim of COPM in this study was to evaluate the effect of 12 weeks Equine Assisted Therapy trial in everyday life activities which clients identified themselves in COPM.

Population and sampling

In six different groups in two centers 22 measures of COPM x2 (in the beginning and in the end of the trial).

Evaluative methods

COPM is a semi-structured interview. The client identifies daily occupations of importance that they want to do, need to do, or are expected to do but are unable to accomplish. The client chooses up to five of the most important problems identified and uses a 10 point scale to rate their own level of performance and satisfaction with performance for each of the five identified problems. The therapist calculates an average COPM performance score and satisfaction score. COPM was administered again at end of process. The scores are calculated the performance and satisfaction change scores.

Duration

10.8.2016 – 20.6.2017

Outcome/ Results

According to studies of COPM a change of scoring in between start and end being two numbers or bigger is clinically significant. The rise in the scores was bigger than two in 8/22 in performance and in 10/22 in complacency of participants. Many of the participants reported increase in active daily living such as sleeping, moving and sitting. Body awareness in several activities was also improved.

Feedback from COPM-manual:

Looking at the summary of change in the scoring you need to be critical. Counting all points together single activity change may alterate. Whereas by noting change of scoring in each and every problem more significant data in personal level is achieved.



Sometimes when attendees own perception and self awareness gets better the rating might become more critical even when the performance has become better.



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ASSESSING THE RIDERS POSTURE AND MOVEMENT ON DIFFERENT TYPE OF SURCINGLE

Mrs. Anne Rokka¹

¹Equine College Hevosopisto, Ypäjä, Finland, ²Ketuviikintie 51, 25610 Ylönkylä, Finland

Background

Part of the study: Sanna Mattila-Rautiainen, The effect of 12 weeks Equine Assisted Therapy trial to patient's low back pain and muscle activity.

Selection of the tack

In the practical interventions we first selected suitable horse and the tack for the low back pain patients. On tack selection both the physical and psychological effect were assessed. In the study physical aim was to find surcingle that allows the optimum position on the horse back to allow the optimum movement for the patient. Many of the participants were in the beginning very tensed up and afraid on the horseback. That's why their own opinion of comfort and feeling of safety was important. Several different materials or thicknesses of therapy pad and different type of surcingles were tried out as well as selection of horses. During the same summer we had a physiotherapy student practising on SJ- stable who wanted to learn more about different type of surcingles. So we made a videoanalysis of this interesting issue and eventually it became a new lecture for my students in Equine Facilitated Therapy courses in Finland.

"Assessing the riders posture and movement with different surcingle"

Analysing the riders movement

Keeping the horse and the rider the same, only surcingle was changed. Video and still photos were shot from the left side and behind. Video material was analysed frame by frame during the equine cycle of walk (2 full steps). Maximum range of motions in riders positions (for example side to side movement) the equipment allowed was turned into graphic illustrations. Playback of these illustrations created a rotoscoped cycle animation of the movement with each surcingle. From behind the maximum positions of the rider (on) both right and left side were illustrated in order to see the scale of the movement from side to side with different tack.



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Paravaulting: therapeutic horseback riding with acrobatic exercises as a discipline of para-equestrian sport

Dr. Jana Sklenaříková¹, Vladimíra Casková¹, Dr. Martina Jansová¹

¹*Czech Hiporehabilitation Association, Brno, Czech Republic*

Background and statement of problem

Paravaulting or acrobatics on horseback is one of the rehabilitation methods based on therapeutic horseback riding and Equestrian sports discipline for persons with disabilities. Paravaulting is still a new worldwide field and was built on the therapeutic benefits of three-dimensional movement of the horse back.

Study aim and objectives

The aim of the study is to broaden the awareness of a given sport discipline, which offers people with disabilities the chance to compete in categories divided into disabilities: mental, physical, health impairment.

Study design

Paravaulting consists of many different approaches that vary in terminology, background philosophy and methods. It is necessary to explore the common ground among these approaches and propose the basic preparation for training units.

Study population and sampling

Sampling consist of person from 8 years old with no age limit. Czech Republic has originality with rules and regulation for competition, training system and special examination for horses before competition.

Data collection methods and measures

Sport system with training units includes elements of the rhythmic, sports gymnastics and workouts are designed to improve orientation, balance and overall coordination.

Outcome/Results

The training unit are formed to match the general requirements for construction and training tailored to the specificity of work with horses and work with individuals with disabilities. An implication of the work is a recommendation to all equine-therapy clubs about effective vaulting program for people with disabilities: athletic ability, coordination, team building, animal interaction.



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Learning by moving

Ms Pia Tillberg¹

¹*Stiftelsen Hippocampus, Gustavsberg, Sweden*

The stable and the environment surrounding the horse, as well as the activities associated with it, is a valuable educational resource for children and adolescents with neuropsychiatric disorders with or without cognitive impairments. Equine assisted learning can enrich the school day and be a resource to reach the School Agency's guidelines for the curriculum's objectives and support the curriculum goals based on each pupil's individual development plan. Equine assisted activities during school hours can also provide valuable leisure activities by offering an opportunity to establish a motivational and physical activity.

Being able to functionally move is essential for exploring and seeking understanding of one self and the surrounding world. It's essential for developing skills to deal with everyday life and for finding a sense of coherence in life.

Persons with neuropsychiatric disabilities struggle with this more than others. The disability has impact on how your moving ability develop. Functional movements are created in cooperation with many different parts within the central nervous system and is so much more complex than just tensing muscles and moving joints. A functional movement have to have an aim and a plan.

Activities around horses are based on real tasks with a purpose which creates conditions for meaningfulness and an opportunity to use the brain and the body for a purpose. The stable environment and the activities together with the horses contains elements of shifting characters, which provide the opportunity to stimulate pupils' development based on individual needs and conditions.

In this seminar I will point out the need of contexts for children and adolescents with neuropsychiatric disabilities that promote motivation and lust for moving and learning. And how the horses and their environment can be such a context.



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Analysis of the horseback rider trunk's biomechanic according to the horse's neck position during walking

Ms Juliana Ganem Fernandes Pires¹, Dr Fernando Copetti¹, Ms Claudia da Costa Mota¹

¹*Instituto Passo A Passo Equoterapia , Itatiba , Brazil*

Introduction: importance has been given to the horse's morphological and biomechanical characteristics, riding equipment, soil type, displacement, speed, in therapeutic riding interventions. However, there was few research published about the influences in the rider due to the manner the auxiliary guide leads the horse. Considering that horse's neck extension or flexion modifies the horse's back physiological curvature, it is speculated that such variations may produce different demands on the rider's postural control, which, in this study, will be represented by changes in trunk inclination. Objective: Investigate if different horse's neck position during walking produces changes in the rider's trunk angle. Method: Ten healthy female volunteers, between 25 and 45 years old, with a healthy standard body mass index (BMI) were selected. Seventeen years old, 1.45cm tall, weighing 413kg arabian horse was used, with overlapping engagement, walking on average 88 steps per minute. The body markings were made based on validated procedures for palpation of bony prominences. Kinovea 0.8.15 software was used for the analysis of the rider's trunk and horse's neck kinematics. The horse was led walking on a straight course, with the neck in neutral position, then with neck flexion and at last with neck extension. The angulations analyses were made frame by frame during a complete cycle of horse step. The angle analyzed in the horse was between the nuchal ligament's occipital insertion, the midpoint of the base of the neck and the lumbosacral point. In human subjects was analyzed the angle between the acromion, femur's major trochanter and the vertical line parallel to gravity. Results: Changes in the position of the horse's neck by the guide produced changes in the position of the trunk of the rider. Although the postural adjusts varies in each subject, there was a detectable tendency for a greater posterior inclination of the rider's trunk during the extension of the horse's neck, as well as greater anterior inclination when the neck is flexed. Conclusion: the modification of the horse's neck position by the auxiliary guide promoted detectable changes in trunk angulation of the rider subjects. Such findings may help in intervention strategies elaboration



Theme 11 – Social & Emotional Difficulties



4

Exploring the Impact of Equine Facilitated Learning on the Social and Emotional WellBeing of Young People Affected by Educational Inequality

Dr. Jill Carey¹

¹*Festina Lente , Co Wicklow, Ireland*

The overall aim of the present study was to examine the impact of an Equine Facilitated Learning Programme on the social and emotional well-being of young people affected by educational inequality. A mixed methods design was used, with a longitudinal quantitative element employed to examine changes over time in key variables, and qualitative methods used to explore experiences of the programme. Dependent measures included the Strengths and Difficulties Questionnaire (SDQ), The Piers Harris Self Concept Scale (PH) and the Youth at Risk Programme Evaluation Tool (Yar-Pet). Participants were 88 young people (male = 62, female = 26) aged between 8 and 18 years with an average age of 13 years of age (SD = 2.20), along with their parents and teachers. Quantitative data were collected over three time points. The second time point included interviews with the young people, their parents and teachers selected from those who had participated in the quantitative data collection at T1 and T2. Retention of participants was high in the young people group (72%), but lower in the parent (54%) and teacher (59%) groups. Quantitative and qualitative data were initially analysed using One-Way and Two-Way repeated measures ANOVA and thematic analysis respectively. Patterns were then identified from both data sets to highlight evidence of convergence and divergence of findings. Significant differences from the One-Way repeated measures ANOVA were observed in several measures including the Strengths and Difficulties Parents Total Difficulties and Peer Problems; Teachers Prosocial and Strengths and Difficulties Questionnaire Impact Supplement; Youth At Risk – Programme Evaluation Tool Young Persons and Teachers total score; Youth At Risk – Programme Evaluation Tool Teachers Personal and Social Objectives; and the Piers-Harris Children's Self-Concept Scale Total score, Physical Appearance, Freedom from Anxiety and Popularity sub-scales. Two-Way repeated measures ANOVA for young people in the clinical and non-clinical range reported significant findings for participants who were in the clinical range, based on self-reporting (Strengths and Difficulties Questionnaire Total Difficulties). Overall, integration of the data suggests that positive changes in the young peoples' self-awareness and relational skills, is likely to be associated with participation in the EAL Programme.



7

Evaluating Human-Equine Interactions through the Lens of Adult Attachment- Lessons Learned from EAAT Research

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¹*University Of Maine/University Of Maine At Farmington, Farmington, United States*

Background and statement of problem

Attachment Theory suggests interaction with caregivers in childhood impacts relationships and health throughout our lives (Bowlby, 1965, 1969, 1971), leaving many with an inability to form healthy relationships or cope with stressors (Holmberg, Lomore, Takacs, & Price, 2011). Horses have interacted with humans for over 12,000 years (Hintz, 1995), holding multiple roles in human society, most relying on observation of equine behavior, and formation of a human-equine bond (Hamilton, 2011). More securely attached humans tend to more readily decipher non-verbal cues, positively impacting their felt security and internal working model of Attachment (Bachi, 2013). Interacting with horses, who provide significant non-verbal cues, may provide an opportunity to enhance this process, providing useful feedback and insight.

Study aim and objectives

Could a single ground-based interaction with a horse, bring about changes in women participants' reports of Attachment and Emotion Regulation? Do behavioral interactions with the horse differ for those with differing dimensions of Attachment or Emotion Regulation?

Study design

Mixed methods study

Study population and sampling

"Wicky" Long Wick, Standardbred mare aged 28, and 22 female students aged 18-30 with minimal horse experience.

Data collection methods and measures

Participants completed Experiences in Close Relationships –Revised (ECR)(Brennan, Clark, & Shaver, 1998) and Emotion Regulation Questionnaires (ERQ)(Gross & John, 2003) at baseline and immediately prior to and following interaction with the horse. Interaction was videotaped and included meeting, grooming, leading, and goodbye.

Data analysis methods

Statistical analyses were completed using SPSS including paired t-tests and correlations. Videotape was evaluated, coded, and included in both quantitative and qualitative data analyses.



Duration of study

Participants were recruited and participated in the study over the period of one calendar year.

Outcome/Results

A significant decrease in Attachment anxiety was shown after interaction and significantly less time was spent at goodbye than at meeting. These were greatest for those with insecure dimensions of Attachment, who also showed the most significant increases in cognitive reappraisal. The findings suggest interaction between horses and people differs along Attachment dimensions and show some support for positive changes in Attachment and Emotion Regulation dimensions.



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Using Hippotherapy to Facilitate Use of a Communication Device in a Young Child with Multiple Disabilities

Dr. Beth Macauley¹

¹*Grand Valley State University, Grand Rapids, United States*

The purpose of this presentation is to discuss the case study of a young boy with a complicated medical history and how hippotherapy sessions facilitated his effective use of an ipad and communication app for functional communication. "SH" was born premature with diagnoses of single ventricular heart defect, Dandy-Walker variation, hydrocephalus, cerebral palsy, and global developmental delay. At 5 years of age he was nonambulatory, used approximately 4 signs - "more," "all done," "please," "thank you," and two words "no" and "mom," and received his nutrition through a g-tube. SH had been discharged from speech therapy for "lack of progress." His parents reported that SH was becoming more frustrated with his inability to communicate and that SH was becoming more aggressive. SH was referred to speech therapy at GREAT (Grand Rapids Equine Assisted Therapy) to determine appropriate recommendations for functional communication. After an initial evaluation, SH began speech therapy sessions using hippotherapy as the treatment strategy. His therapy goal was to use an ipad with a communication app to answer questions and initiate interaction. SH made stunning progress. During the first therapy session on the horse, SH used the ipad to tell the horse to "go" and "stop" independently. During the second session, SH learned the sentence "I want go" to tell the horse to go. By the 8th session, SH was creating novel phrases with the device to answer questions and tell the horse to go slow, fast, left, right, up, and down (a hill). 6 months later, SH was able to use the ipad and communication app to initiate communication and answer questions during the hippotherapy session as well as at home and at school. It is the opinion of the presenter (the treating speech therapist) that the movement of the horse increased arousal and facilitated coordination of the nervous system allowing SH to learn to use the ipad and app over a relatively short period of time. Therefore, equine movement may facilitate expressive communication in people with significant communication disorders.



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Equine Movement Facilitates Correct Articulation of /r/

Dr. Beth Macauley¹

¹*Grand Valley State University, Grand Rapids, United States*

The phoneme /r/ is a difficult phoneme to teach because the tongue is superior and posterior in the oral cavity with tight muscle tone. This placement of the tongue for correct /r/ can not be seen or physically manipulated. The primary treatment strategy for /r/ is to teach the client to discriminate correct and incorrect production of /r/ by other people and then for the client try to imitate correct /r/ production themselves. This is difficult to do because correct discrimination does not guarantee correct production. Hippotherapy, treatment using equine movement, has been documented to improve neuromotor coordination. Therefore it may be possible that using equine movement in speech therapy may improve the coordination of articulation and could be used to teach correct production of /r/. The purpose of this presentation is to discuss how equine movement was used within speech therapy sessions for a 7 year old boy and a 21 year old man to facilitate and teach accurate production of /r/. Both clients correctly articulated /r/ within the first 2 sessions with significant improvement and generalization noted after 3 months. This timeline of improvement is significantly faster and more effective than traditional therapy for /r/



22

Lessons Learned from Horses: Comparing Equine-Assisted Social Education Intervention on Special Education Pupils' Well-being with ART and Co-Operational Mathematics

Ms. Ritva Mickelsson¹

¹*University Of Helsinki, Espoo, Finland*

Well-being is one goal of comprehensive education in Finland causing a need for effective evidence-based interventions for improving the emotional growth of the pupils. Findings from various studies, indicated that social relationships, providing love, intimacy and guidance, had impact on individual's psychological well-being. This study is an interdisciplinary (special education, social studies, psychology and anthrozoology) dissertation of three different 8-week interventions. Equine-assisted social education and Aggression Replacement Training (ART) were chosen by both having elements of social skills and life-skill competence, while co-operational mathematics was an academic intervention including social interaction. All three interventions involved both social and relational features. The fourth group consisted of pupils, who has "treatment as usual". Equine-assisted social education had activities based on Trotter's manual EPIC-training.

The aim was to compare the effectiveness of three different interventions on well-being of the pupils with special needs. The national core curriculum left space for local decision to adjust teaching and learning appropriate, allowing schools to fit equine activities as learning strategies. The research questions were: Does an additional intervention have impact on special class pupils' well-being? Does any of three interventions implemented in this study show more impact on well-being than the others? Is there any difference in overall well-being between the intervention groups after intervention?

Study design

The study design is quantitative pre/post test with follow up, having also control groups.

Study population and sampling

Eight special education classes having pupils on the 3rd and 7th grade with learning problems (N = 60), from six schools, were recruited for the research. Six of those classes were assigned to the interventions, while two of the classes were control groups.

Data was collected from pupils, parents and teachers (Achenbach questionnaires, 1991) and outcomes of aggression, empathy, locus of control, and loneliness.



Statistical analysis compares outcomes of pretest, posttest and follow up, finding out the variance inside the groups and interventions as well as between groups and interventions.

Outcome and results are done by the end of February 2018.

Asher, Hymel, & Renshaw (1984)

Buss, & Perry (1992)

Darmansah, Misnan, Sam, & Omar, (2017)

January, Casey, & Paulson (2011)



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Equine Interactions and Social Pedagogy at an Irish Children's Home

Dr. Laura Meyer¹, Dr. Lavita Nadkarni², Dr. Toby Haslam-Hopwood³

¹University Of Denver, Denver, United States, ²University Of Denver, Denver, United States, ³Galtee Clinic, Ballyporeen, Ireland

Background and statement of problem

The researchers conducted a program evaluation of a Clinic in rural central Ireland. The Clinic consists of a registered children's home and a farm that houses horses and other animals. The children complete animal care tasks and weekly riding lessons at the farm. The researchers aimed to support Clinic programming by exploring the children's equine interactions through the lens of social pedagogy.

Study aim and objectives

The aim of this study was to explore equine interactions in the context of social pedagogy at an Irish children's home. Specific objectives were as follows:

1. To use the domains of social pedagogy as a framework for understanding children's interactions with horses, and
2. To develop social pedagogy-informed recommendations to enhance these interactions.

Study design

The program evaluation was designed as a qualitative study.

Study population and sampling

Participants included two house pedagogues who lived in the children's home; the Clinic director, a psychologist; a riding instructor; and nine activity therapists, who supervised the children.

Data collection methods and measures

Semi-structured interviews were conducted with the participants. Interview questions addressed the nine domains of social pedagogy. Participants were asked to reflect on the children's interactions and relationships with the horses and to share any additional information that might clarify how equine interactions affected the children.

Data analysis methods

The data were analyzed according to the tenets of consensual qualitative research (CQR). The researchers reviewed and coded every transcribed interview. Quotes were categorized into the nine domains of social pedagogy. Analysis ended when consensus was reached on categorization. Quantitative analyses were not appropriate for these interview data.

Duration of study

Interviews, lasting from 45 minutes to 1.5 hours, were conducted during five days at the Clinic.

Outcome/Results

Equine interactions contributed to the children's development in four of the nine domains of social pedagogy: Child as a whole person, reflective practice, practical and creative, and centrality of relationship. The horses provided affection, structure, and reward, while supporting the development of self-discipline



and accountability. Deliberate and structured use of equine interactions, informed by social pedagogy, are likely to enhance positive outcomes.



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A feasibility study of an equine assisted intervention for young people with social and emotional challenges

Professor Ann Hemingway¹, Charity Founder Harriet Laurie²

¹Dept of Human Sciences and Public Health Bournemouth University, Bournemouth, United Kingdom, ²TheHorseCourse, Weymouth, United Kingdom

A Feasibility study of an equine assisted intervention for young people with social and emotional issues

Background and statement of problem

This paper presents the findings from a feasibility study of an equine assisted intervention (EAI) which brings together young people with social and emotional issues and horses to learn natural horsemanship skills. The intervention under study is referred many young people with problems such as anxiety/depression, anger management/violence, Attention Deficit Hyperactivity Disorder, self-harm and relationship issues.

Study Aim and Objectives

This feasibility study aimed to assess whether this intervention was suitable for further study using a randomised controlled trial. The different dimensions of the study as outlined below are intended to assess whether this intervention will lend itself to expansion and roll out across further areas in the UK if shown to be effective.

Study Design

Before and after measure comparison study, using a feasibility study framework which outlines eight areas of focus which will be addressed (Bowen et al., 2009) acceptability, demand, implementation, practicality, adaptation, integration, expansion and efficacy testing.

Study population and sampling

n=155 young people aged 8-18 make up the convenience sample.

Data Collection Methods and Measures

Before and after measures were completed by the social worker or teacher who referred the young person the tool used is a star chart which was inspired by the mental health recovery star tool (UK). A qualitative interview with charity founder to explore feasibility study areas was also undertaken.

Data Analysis Method

We used a non-parametric, related sample sign test using SPSS Version 19.

Duration of study

Two years.



Outcome/Results

Statistically significant positive improvements across eight areas were shown through the analysis: Assertiveness, calmness, empathy, engagement with education, communication, taking responsibility, focus and perseverance and realistic analysis and planning. A further four skills were assessed two months after the intervention by the referrer which also showed significant improvement on analysis, engagement with education, problem behaviours, relationships and sense of identity.



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Stop the bullying with the help of the horse.

Ms Mariarosaria Battagliese, PhD Giuseppe Battagliese

¹Associazione "Parco del Cilento"- Centro Studi "M. Franciulli Battagliese", member of "Lapo" Association, Ascea (Sa), Italy

Premise: we often hear topics like bullying and cyber-bullying being mentioned. The true etiology of the phenomenon (insecure attachment) is rarely described. When we talk about possible interventions, it is often ignored that horses could take a very crucial part in the physical and emotional well-being of young people (both aggressor and victim).

Background and statement of problem: Bowlby (1969) considered attachment a deep and enduring emotional bond that connects one person to another across time and space. His theory also suggests that there is a critical period for developing an attachment between children and caregiver (about 0 -3).

Ainsworth (1970) explained that there are secure and insecure attachment. Secure attachment provides sense of protection, security and love. Three different insecure-attachment classifications have been identified: anxious-ambivalent, anxious-avoidant or disorganized/disoriented. Savage (2014) and the others authors in his review, suggest a very consistent association between attachment and violent behavior.

Insecure attachment and poor parental bonds have been linked to conduct disorder and delinquency in samples of children ranging from toddlers to young adults. Zilcha-Mano et al. (2011) propose a model of Animal-Assisted Therapy (AAT) based on attachment theory. It also suggests that AAT is a possible way to foster the development of more adaptive patterns of attachment and healthier modes of relating to others.

Study aim and objectives: to refer to the opportunities that Equine Facilitated Programmes (EFP) offers in order to reduce the suffering of minors experiencing affective and emotional distress, supporting the development of secure attachment patterns. Often these children experience difficulties in daily life and show enormous insecurity and maladaptive behaviour at school, home and in social contexts. The horse, more than any other animal, through the mediation of an operator, can promote the development of secure attachment. As a consequence, improvements in self-esteem, sense of autonomy, independence and social relationships can occur (Battagliese and Battagliese, 2009, 2015).

Outcome/Results: EFP could be an effective strategy to promote secure attachment in those children who have not developed one. Consequently, an improvement in these children's emotional wellbeing could also begin to reduce phenomena such as both bullying and cyber-bullying.



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A Comparative Study of the Efficacy of Equine Facilitated Psychotherapy and Traditional Psychotherapy for Female Survivors of Trauma

Dr Shannon Keleher¹, Dr Marilyn Sokolof²

¹HorseMpower, Inc, Hawthorne, United States, ²Unbridled Therapy, Micanopy, United States

STUDY TITLE

A Comparative Study of the Efficacy of Equine Facilitated Psychotherapy and Traditional Psychotherapy for Female Survivors of Trauma

BACKGROUND AND STATEMENT OF THE PROBLEM:

Trauma is a serious problem, resulting in severe emotional, medical, and social disturbances. Anecdotal evidence of the effectiveness of Equine Facilitated Psychotherapy in treating symptoms of trauma abound, but there is a need for empirical evidence.

STUDY AIM AND ADJECTIVES

This objective of this study was to compare effects of traditional office-practice therapy versus equine facilitated psychotherapy (EFP) on trauma symptoms.

STUDY DESIGN

The EFP treatment group received an 8-week treatment plan (2-hour sessions, once/week). The Office treatment group received a 5-week treatment plan, (2-hour sessions, once/week).

The EFP treatment protocol was a HorseMpower, Inc treatment lesson plan with each session organized to address trauma-recovery issues.

The experimental design included: random sampling, treatment and control groups, measures of pre-test and post-test changes, dependent variables of professionally restricted psychological assessment measures, and statistical significance set at $p < 0.05$.

STUDY POPULATION AND SAMPLING

Population consisted of 9 female trauma survivors, ages 14-19, referred by two county Survivor Advocacy Agencies. 19 women were screened, 5 assigned to EFP treatment group (4 completed), and 10 assigned to control group (5 completed).



DATA COLLECTION METHODS AND MEASURES

The instruments for analysis of effectiveness are recognized, valid and reliable measures. Each measure was given to each participant shortly before the treatments began and shortly after the treatments concluded.

Adult participants received the BECK Depression Inventory-II (BDI-II), BECK Anxiety Inventory (BAI), and Trauma Symptom Inventory-2 (TSI-2). Youth participants received the BECK Youth Inventory-Depression (BDI-Youth), BECK Youth Inventory-Anxiety (BAI), and Trauma Symptom Checklist for Children (TSCC).

DATA ANALYSIS MEASURES

The data were analyzed using the SAS-Wilcox test.

DURATION OF STUDY

Entire process, including treatment groups and pre- and post-session assessments, occurred between July, 2016-September, 2017.

OUTCOME AND RESULTS

TRAUMA decreased significantly for the treatment group but not for the control group. Changes to individuals in each group for each factor measured were notable, although not all were significant.



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"Because they feel your heartbeat!"- Heartrate (variability) as a sign of synchronization within horse assisted therapy based on body language.

Anna Naber¹, Dr. Lisa Maria Glenk², Dr. Karin Hediger³, Univ.-Prof. Dr. Thomas Stephenson⁴

¹*E.motion Equotherapy, Vienna, Austria*, ²*Comparative Medicine, The Interuniversity Messerli Research Institute of the University of Veterinary Medicine Vienna, Medical University Vienna and University Vienna, Vienna, Austria*, ³*University of Basel, Basel, Swiss*, ⁴*Sigmund Freud University, Vienna, Austria*

Humans with intellectual disability often face a more challenging personal development and have problems using language properly and feeling understood. Therefore, resource based therapy methods are preferred to support the clients coping with the disadvantages due to their disability. While the obvious unequal level of power in therapy is often difficult to handle, non-verbal and less judging therapy offerings are useful to rebalance disadvantages, especially for clients with lower ability. Interaction and taking influence is the key factor not only in communication but also enables the client to gain more self-efficacy leading to a higher well-being. Horse-assisted-therapy offers the stimulation of many different areas regarding social and emotional skills and therefore an opportunity to get in contact without words and reducing the overall stress-level.

A general indicator for a stressor to the nervous system is the heartrate. The variability of the heartrate shows the ability of the organism to adapt to internal and external stimuli, an important predictor for wellbeing. Furthermore, every social interaction has an effect on the cardiovascular activity. Emotional transmission and synchronization are important for every social interaction because every creature strives for synchronization and coherence. These processes of interaction can occur not only within the same species but also between animal and human.

To analyze these interaction processes a pilot project is started examining the patterns in heart rate and its variability of ten clients between 17 and 20 years, their therapy horses and therapist. With a randomized controlled within-subject design with repeated measurements, changes in the heartrate variability on the one hand and the synchronization of the heartrate of clients, horses and therapist on the other hand are analyzed. The changes of the heartrate variability (SDNN, RMSSD, HF/LF-Ratio, SD1) during horse-contact compared to a barrel horse as the control condition as well as general changes in heartrate during the therapy-session are explored.

As pretests showed first promising results, we plan to finish the study by the end of 2017.

The aim of the study is to offer a new opportunity of non-invasive research in the field of equine-assisted therapy fulfilling scientific standards regarding methodological skills.



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Equine Assisted Education Used for Empowerment of Children and Youth

Mrs. Chang Minghui¹

¹No.3-5, minde4th, Hualien, Taiwan

Equine Assisted Education Used for Empowerment of Children and Youth

Background and Statement of Problem:

Hualien in East Taiwan is a rural area with a high percentage of indigenous people lacking employment and struggling with alcohol and drug problems. Children and youth do not get the support they need from their families. Many are living in institutions or foster families.

Study Aim and Objectives:

To enable children and youth from difficult backgrounds to change from service receivers to become service providers, experience self-worth and find goals for their future lives.

Study Design:

Children and youth from three different sources are coming to the Equine Assisted Education Centre to learn stable chores, horse leading, side walking and riding:

- Middle School students from foster homes, working on weekends and getting paid by the "Taiwan Fund for Children and Families".
- Children and middle school students living in an institution working and riding on weekends and getting funded through grants the institution is applying for.
- Disadvantaged children from the surrounding community come for some work and classes on Saturdays. No funding for this program yet.

Outcome:

Feedback

- by the foster mother: the student is willing to share his experience at the stable and is starting to develop different views and own ideas. He has learned responsibility and starts to establish emotional bonds.
- by the institution: the group experience at the stable helps the children to overcome their emotional distress, they find own goals and directions.



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Youth-at-Risk Equine Studies: Five-Year Statistical Review of Exam Results

Dr Anita Shkedi¹

¹Israel National Therapeutic Riding Association, Bnei Zion, Israel

Background

In 2017, there are an estimated 345,000 at-risk youth in Israel, many of whom quit high school because they cannot cope. Typically, their issues lead to ongoing academic and interpersonal failures, perpetuating negative self-images and ongoing rebellious behavior.

Since 2006, the Israel National Therapeutic Riding Association provides at-risk youth a two-year Equine Studies program developed by Dr. Anita Shkedi. This fully accredited “Bagrut”, an (A-Level) high school course, is recognised by the Israeli Ministry of Education for matriculation. It employs active learning strategies, fostering consistent work habits for developing new academic pedagogic skills through horsemanship and horse-care knowledge. The program positively affects self-confidence and motivation, empowering students to study further or secure jobs within Israel's rapidly growing horse industry.

Aim and objectives: Identify general parameters for student success of required academic results and a positive level of emotional change. The evaluation, along with other observations, provides practitioners with concrete data, guidelines and observations for application to future programs.

Sample population: 187 at-risk youth, (ages 16-18) from two special needs high schools, two teachers, and two practitioners. The students’ major challenges included Attention Deficit Hyperactive Disorder, Autism Spectrum Disorder and Obsessive-Compulsive Disorder.

Methodology and analysis: A critical evaluation of the program’s effectiveness was conducted by measuring and verifying performance. Statistical data was gathered and analysed from five years of examination results, in addition to teacher, practitioner and student interviews.

Outcomes: Rigorous research highlighted key findings making possible future recommendations. The program averaged an 80% pass-rate, with many students choosing to further their education via professional training. Students reported changes in their ability to study other school subjects. They reported with self-confidence that success gave them a boost (“higher grading”) both academically and socially. Program gaps suggest that teachers need more tools to better understand at-risk youth; teaching skills; and horse knowledge to guarantee students the required “higher grading”. Findings suggest this is an excellent teaching and learning method for at-risk youth.



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The perception of burden in parents and caregivers of children and adolescents with disabilities practicing Equotherapy in Brazil

Mrs. Vera Maria Horne Cruz¹, Mr. Edcarlos Freitas^{2,2}, Mrs. Latife Nemetala^{3,1}

¹ANDE-BRASIL, Brasilia, Brazil, ²Institute of Superior Studies, UNEC, Caratinga, Brazil, ³ANDE-BRASIL, Brasilia, Brazil

-Background and statement of problem: Many follow- up studies on the personal characteristics of caregivers mention that they'd usually feel overloaded by concerns and daily tasks requested on the job although such burden perceptions may grow into a physical or mental illness which is usually not taken into consideration by none; "Could the practicing of Equotherapy/Hippotherapy by children with disabilities be effective to help diminishing their caregivers perception of burden?" -Study aim and objectives: Establishing comparison between the responses of parents and caregivers of children and adolescents with disabilities to a questionnaire applied in two moments of Equotherapy practices of children, aiming at determining differences on their burden levels detected on pre and post test. -Study design: Pre/post test comparison. - Study population and sampling: The sample comprised 21 parents and caregivers of 21 children and adolescents aged between 4 and 21 years practicing Equotherapy in two Equotherapy Centers in different locations. -Data collection methods and measures: The 'Zarit Burden Interview-standardized questionnaire' (Scazufca, 2002) containing 22 questions* was used to assess health aspects, social and personal life, financial situation, emotional well-being, interpersonal relationships and environmental aspects of the subjects lives. At first, subjects were introduced to the research through individual interviews with the Psychologists of the Centers where their children had started the therapeutic practices on the last 15 to 21 days, once a week, when after having read and signed a 'Term of Adherence and Volunteering' they were asked to answer to the questionnaire. After 3 months these parents and caregivers were invited to answer the same questionnaire again. -Data analysis methods: The 't Student test' was used to compare the resulting averages obtained through the SPSS v. 20 statistical comparative analysis method applied to both assessments outcomes. -Duration of study: February to August 2017, except in July. -Outcome/ /Results: The first assessment outcomes were: Average=38.04; PD=3.3; The 2nd assessment outcomes were: Average=24; PD=1.6; The resulting pairwise averages were considered significant as $t = 6.5$; $0.03, 0 = P < 0.05$; The caregivers lower levels of burden perceptions were detected within their results on the 2nd assessment occasion.



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Equine Assisted programme for the Rehabilitation of Youth at Risk (15-17 years) - From Individual to Group Approach.

Mrs Laurence Weill Ikan¹

¹IMH - TRCOM Israel, Zichron Yaakov, Israel

Title: Equine Assisted programme for the Rehabilitation of Youth at Risk (15-17 years) - From Individual to Group Approach.

Presentation Format: Special Project (oral)

Theme: Social and Emotional Difficulties.

Presenting Author: Laurence Weill Ikan is the co-founder and General Manager of IMH NGO for the promotion of equine assisted programs in Israel. She is also the head of the Wizo Nir Haemek Therapeutic Riding Training Course, Founder and former Chairman of the Therapeutic Riding National Committee at the Israel Equestrian Federation (2008-2015), Member of the Board.

Study design: Case Report (9)

Description of our project as it relates to the efficacy of equine assisted programmes:

Fifteen Youth at Risk, placed in a Welfare Department boarding school, entered the Two-year equine assisted programme of rehabilitation at Epona Riding Center (Sde Warburg, Israel). The youth participated to the program eight hours each week, for 38 weeks each year. Through riding, horse-care and ground work, they learn life skills.

The motivation to ride and communicate with horses frequently push the limits of ability to new horizons. With the help of the team, youth at risk learn to face new challenges, to cooperate with learning, exercising, focusing on tasks and be more cooperative and mindful of others. As they succeed with the horse, they restore their self-esteem and build self-confidence, opening their body and their mind to new experiences. After two years we were able to evaluate the outcomes of the program, which enabled us to point to its achievements and highlighted the importance of developing new strategies for groups work.



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Treating Addiction With the Help of a Horse

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Substance abuse is a world-wide problem, resulting in significant social, economic, physical, and emotional consequences. Treating addiction with Equine-Facilitated Psychotherapy (EFP) provides unique and powerful dynamics for change. Specific collateral symptoms of addiction can be addressed through equine interactions: loss of control, unhealthy self-soothing, dysfunctional relationships, damaged trust, loss of faith in self, and physical dysfunction.

Co-occurring disorders, such as depression, anxiety, personality disorders and somatic disorders, exist along with addiction, as cause and/or effect. Specifically Post Traumatic Stress Disorders have been shown to be positively affected by the inclusion of equines as therapeutic partners. A brief description of an experimental design showing these results is included.

Early intervention and especially prevention of addiction through equine interactions is an exciting area for future programming. Broad and basic United Kingdom recommendations are translated into specific dynamics of change that can occur within EFP.

This presentation elaborates on these issues, and includes descriptions of specific cases. The powerpoint presents pictures representing many of the items discussed.



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Creating Protected Spaces for Families: Working with Horses in the Transitioning Families™ Model

Dr Rebecca Bailey¹, Nina Ekholm Fry²

¹*Transitioning Families, Glen Ellen, United States*, ²*Institute for Human-Animal Connection, University of Denver, Denver, United States*

Transitioning Families™ and the Transitioning Families Reunification Model™ is a recognized therapeutic approach for assisting the family structure from within the family. The program specializes in serving families estranged or distanced from each other by extreme situations such as abductions, violent crime, exploitation, high-conflict divorce, and court involvement. Central to the Transitioning Families™ model is its equine and animal-assisted components. Through experiential work with horses, mental health and relational issues within the family can be addressed in a non-threatening way, supporting the program's goal of strengthening existing familial relationships and supporting the development of compassion and communication skills that have been disrupted by separation and trauma. When working with families who have experienced extreme and traumatic events, proving protected spaces for healing is necessary. The creation and maintenance of a therapeutic environment with a focus on the health of clients, therapists and staff, animals, and nature is crucial for clinical success. Through description of program components and case studies, we will highlight how equine-assisted work within this program enhances its therapeutic effect.



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Pilot Study: Equine Assisted Therapy (EAT) can change adaptive functions in children with Dyspraxia.

Dr. Michela Marzorati¹, Dr. Roberta Giobellina¹, Dr. Chiara Luzzoli², Dr. Ilaria Detragiache³, Dr Annalisa Roscio¹

¹Associazione "Amici del Centro Vittorio Di Capua Onlus", Milano, Italy, ²ASST Grande Ospedale Metropolitano Niguarda, Milano, Italy, ³University Cattolica del Sacro Cuore, Occupational Therapy Departement, Moncrivello, Italy

BACKGROUND AND STATEMENT OF PROBLEM

In the last years, it has been noticed an increase of children diagnosed with Dyspraxia.(L. Sabbadini 2013). This condition impacts the variety dimensions of daily living. Children with Dyspraxia present with a variety of impairments on a motorial ,cognitive, emotional, social and relation level.

Nowadays in literature exists only one article concerning Dyspraxia and EAT (Therapeutic Journal Alternative and Complementary Medicine, 20(1), 19–23. .)

To increase scientific research in this field, our Center has been engaged in the present study.

STUDY AIM AND OBJECTIVES

The study's objective were to evaluate if EAT is a treatment that, pushing on specific difficulties of the pathology , may have a positive effect on children's ability to adapt to its own life environment.

STUDY DESIGN

Pilot Study

STUDY POPULATION AND SAMPLING

Six children, 2 female and 4 male, age ranging from 6 to 9 with a confirmed diagnosis of dyspraxia were included .

For the whole sample , EAT was the only rehabilitation action for the global stimulation, practised during the study.

DATA COLLECTION METHODS AND MEASURES

Patients have been evaluated by a clinical and funcional specific procedure.

Outcome measures relating to impairment (APCM-2 Abilità prassiche e coordinazione motoria , Sabbadini L. 2015), adaptive functions (VABS Vineland Adaptive Behavior Scales, Sparrow et al. 1984), self-perceived levels of performance (COSA - Child Occupational Self Assesement, Schwarz S.et al. 2008), self body representation (OMINO DI GOODENOUGH , Goodenough ed Harris 1977) and VIDEO- ANALYSIS were measured at weeks 0 and 24.

The choice of setting , horses and intervention strategies have been defined in detail for each patient.

DATA ANALYSIS METHODS



Descriptive Statistics

DURATION OF STUDY

The project was taken on for a 6 month period, for a total number of 24 sessions, once a week; 30 minutes on horse-back and 30 minutes on the ground.

OUTCOME/RESULTS

From the analysis of the raw data appears that all the patients were modified;
The modifications regarded communication, coordination and balance, sequencing and ocular motility. It stands out an improvement of its own sense of competence and self-perception.



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Using the movement of the horse to develop the individual's awareness of their own movement in relation to the environment.

Miss Jane Pritchard-Williams¹, Mrs Paola King¹

¹*The Fortune Centre Of Riding Therapy, Christchurch, United Kingdom*

Background and statement of problem:

Individuals with Learning Difficulties and Disabilities often have complications with motor skills and struggle with processing the signal from the brain to the limb.

This difficulty can be demonstrated by the incapability of integration and processing information and then putting that information into a sequence, which is problematic for the individual and can be outside of the individual's capacity.

These difficulties may also manifest in the integration and processing of information associated with social and personal interaction issues.

Study aim and objectives:

Equine Rhythm Work enables the horse motivated student to process the movement of the horse.

The kinaesthetic learning in Equine Rhythm Work stimulates and activates their own motor skills to progress their ability to process the signal from brain to limb and to improve their capacity for spatial awareness.

Study design:

Case Report

Study population and sampling:

Young People with Learning Difficulties and Disabilities from a three year further education residential course.

Data collection methods and measures:

Photographic, observational and feedback from Reviews and Reports.

Data analysis methods:

Duration of study:

Academic year

Outcome/Results: Improved capacity for spatial awareness helps the individual to develop the sequences and skills necessary for social inclusion and successful personal interactions.



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Interspecies Communication

Miss Jane Pritchard-Williams¹, Mrs Paola King¹

¹*The Fortune Centre Of Riding Therapy, Christchurch, United Kingdom*

The purpose of this study was to explore how Loose Schooling a horse can be used to demonstrate to the young person how their behaviour and mannerisms can be understood by the horse and thereby have an effect on the horse's behaviour.

The young person is provided support to explore the feedback that the horse is constantly providing and guided to understand and recognise the effect this communication is having upon both species.

The result of this can be used as a tool to educate and teach the young person to recognise the effect that their behaviour may have in a social setting and how to communicate effectively

Duration of study: 2 years

Student is able to identify communication cues from the inter-action with the horses, able to react to those cues in a manner receptive to the horses, and then to transfer this recognition to interact and communicate more successfully within their social network.



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Equine Assisted Learning Combined with Traditional Tutoring Reduces the High School Drop-out Rate in At-Risk Youth

Prof. Jo Anne Miller¹, Dr. Amanda Rumore¹

¹*Randolph College, Lynchburg, United States*

Horses and their care practices provide opportunities to teach critical life and communication skills including decision-making, self-awareness, empathy, and coping. Similarly, at-risk youth, those defined as having an increased risk of academic failure due to social, emotional, and socioeconomic factors, require interventions that develop these skills in order to successfully graduate high school. The difficulty of working with this population has resulted in the employment of many non-traditional approaches to improve their educational attainment including animal-assisted therapy, wilderness therapy, and adventure-based therapy.

The United Neigh Program at Brook Hill Farm (BHF) in Central Virginia (USA) uses equine assisted learning (EAL) combined with traditional tutoring to reduce the dropout rate among at-risk youth. The small-group after-school program pairs horse care and mounted instruction with academic tutoring for at-risk youth ages 12 – 18 from local schools. From 2008 – 2016, 100% (n= 40) of students who participated in the program went on to graduate from high school compared to 82% for the adjusted cohort graduation rate (ACGR) of all public high schools in the area. BHF believes that at-risk youth require the opportunity to build resilience and partake in deliberate practice by interacting with horses, thereby developing the skills needed to benefit from traditional tutoring. Unfortunately, there is limited quantitative research that compares programs like Brook Hill's to traditional educational intervention programs. The exceptional results seen in the BHF program indicate further research is needed to validate its true efficacy related to improving educational outcomes of at-risk youth.



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Horse Herds teaching Human Herds
Using 'Power of the Herd' principles to strengthen family dynamics.

Ms Deborah Draves Legg¹, Ms Sally Nilsson

¹*Leaves And Lizards Arenal Volcano Cabin Retreat, Monterrey, Costa Rica*

Eponicity is the Eponaquest based equine facilitated learning program at Leaves and Lizards Retreat in Costa Rica. We have created a one-day family workshop that offers a profound experience in understanding the concepts of dominance, leadership, nurturing, sentinel and predatory roles as described in Linda Kohonav's book, "Power of the Herd". The workshop centers around understanding the benefits and challenges of each of the roles as related to herd behavior, human group dynamics. In this multi-media (and possibly a hands on demonstration) presentation we discuss the workshop structure. It is presented in 5 segments:

1. Assessment of the family unit
2. Create a supportive working environment
3. Basics of horse interaction and safety
4. How to teach the Herd Roles and experience the roles with horses and with family members
5. Create a 'Herd Role Dance' (pulling together the information and experience the flow of moving between roles with a horse to music)

This workshop is beneficial for all types of families and the desired outcomes are:

Greater understanding of:

*Horses and their capacity to help humans

*The herd roles' benefits and challenges related to individual, social and family dynamics; creating an understanding of themselves as individuals and as a family

A lasting experience:

*Using intuition when solving problems or reaching a goal

*Moving fluidly from one role to another – the "Master Herder" concept

Feeling connection:

*Recognize opportunities for growth – both as a family and as an individual

*Experiencing vulnerability that leads to connection

The presentation is 60 minutes long and we can add a 30 minute demonstration if the conference allows.



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Equine-facilitated Cognitive Processing Therapy (CPT) for treatment of trauma related social and emotional difficulties in veterans

Ms. Emily Macauley¹, Dr. Tracy Wharton¹, Dr. James Whitworth¹, Dr. Marguerite Malone²

¹University Of Central Florida, Orlando, United States, ²Serendipity Farm psychotherapy, Tuscaloosa, United States

Background and statement of problem: Approximately 12-15% of veterans who have deployed since 2001 experience symptoms of PTSD, yet available evidence suggests that up to 50% remain resistant to therapeutic intervention to address symptoms.

Study aim and objectives: This study used a manualized adaptation of the US Veterans Affairs CPT model, which infused equine facilitated activities into face-to-face therapy sessions. The aim was to test effectiveness in a community setting. We hypothesized improvement on all measures and low attrition.

Study design: This is a pre/post test design.

Study population and sampling: Military veterans with a mental health diagnosis related to trauma were recruited through word of mouth in a southeastern US state.

Data collection methods and measures: Participants completed instruments at intake and again after last session. Instruments included the following validated measures: PTSD checklist (PCL), Trauma Related Guilt Inventory (TRGI), & Working Alliance Inventory (WAI). Additionally, the Human Animal Bond scale (HABS) was used to evaluate relationship with the equine partner.

Data analysis methods: Data were sent to a research team member for analysis. Paired sample t-tests were conducted using SPSS.

Duration of study: Veterans were seen by a single psychologist. The intervention involves 12 sessions of individual therapy.

Results: 27 veterans participated, mean age of 51; 78% male. PCL scores improved significantly ($M_1=68.25$, $M_2=35.96$, $p<.001$), as did TRGI scores ($p<.001$ on all scales). HABS & WAI indicated good working relationship. Two individuals attended one session and did not return; there was no other attrition (7% rate).



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Therapeutic Riding in school for children with attachment issues

Mag B.ed Andrea Herget¹

¹*Österr. Initiative Pferde Helfen Menschen - Verein Alisequus, Vienna, Austria*

Every year we seem to face more children with disruptive, destructive or controlling behaviour in school. They are often unfocused or withdrawn. Such behaviour can be a sign for attachment issues. Checking the background of these children, one may find risk factors such as poverty, poor parental mental health, neglect, family bereavement and frequent moves of home or school.

However, children and young people need to feel safe and secure before they can begin to learn ¹. Because learning is most effective if we have a positive relationship with the person teaching us ².

“While the school itself cannot replace an insecure attachment with the primary care-giver, it can offer a secure base, a place of safety and attachment” (Rose J.; Parker R., 2014) – all the more if there is a horse involved. Children and young people, after being betrayed by adults in their anticipation of a secure attachment, can more easily trust and form a bond to an animal. The motivation to communicate and learn is enhanced in a therapeutic riding context. Disruptive behaviour is not as often displayed as in the classroom. All the benefits of the horse - in showing empathy, in reflecting behaviour, in carrying us - can be used to create a secure base for the children and young people. By learning to trust the horse and in addition the riding therapist, the children will not only form a bond to the horse but also to the adult, whom they couldn't trust before ³.

Answering the following questions will be the focus of a study in progress:

- Is it possible to transfer trust in adults (therapist) from the stable to the school (teacher)?
- Is it possible to enhance learning capability in school through therapeutic riding?
- Is it possible to change attachment issues for the better with the help of therapeutic riding?

¹ Dr Janet Rose and Richard Parker: The implications of Attachment Theory for schools, May 2014

^{2&3} Lauren Weisberg: The Importance of Attachment in Therapeutic Horseback Riding, April 2015



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Horse Powered Reading

Mrs. Claudia Eva-Maria Emma Weitzel², PhD Michele Pickel¹

¹Cross P Ranch - Horse Powered Reading, Forest Lake, United States, ²Equitots, Durbanville, South Africa

Background and statement of problem

Horse Powered Reading was created in 2012 by Michele Pickel PhD to help struggling readers. It blends social emotional learning with academics. Through experiential learning activities, students see and experience reading physically, mentally, emotionally and spiritually. During sessions, reading problems are made visible through metaphors assigned to the horse's behavior or the environment. The activities engage horses and students with the environment to represent reading skills or reading challenges. Facilitators hold the space with reading elements and horses, so through productive struggle, the child can dissolve possible hindrances to learning. This leads to increased motivation, self-efficacy, and persistence in learning.

Study aim and objectives

The purpose of this research is to evaluate the efficacy of Horse Powered Reading.

Study design

Four mixed method pilot studies combined with data from Equine Assisted Programs worldwide using Horse Powered Reading have given us insight into this program which we would like to share with others in the industry.

Study population and sampling.

Primary and elementary students

Data collection methods and measures

Students in the experimental studies completed pre and post assessments measuring:

- reading skills,
- attitude toward reading questionnaire,
- motivation for reading questionnaire.

Teachers, facilitators, and families of students provided:

- Written or audio session reports during the study
- Interview reflections after the study was complete

Other qualitative data was collected from additional Equine Assisted Learning programs.



Data analysis methods

The data analysis is a mixed methods analysis. We looked at not only the numerical data gathered from assessments given to students before and after interventions, but also at the observation notes, and focus groups with students, parents, facilitators, and teachers.

Duration of study

Four pilot studies of 8 sessions over 4 weeks and qualitative data (2012- 2017).

Outcome/Results

Preliminary results indicate students

- Are inspired to read / enjoy reading
- Increased motivation
- Increased self-confidence
- Gained persistence to continue reading
- increased self-confidence and engagement in academics
- Increased persistence in completing their tasks.
- Improved overall positive attitudes



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The Polyvagal Theory as a potential background theory for therapeutic riding

Occupational Therapist, Riding Therapist, Mindfulness Based Cognitive Therapist (MBCT), Cognitive Behavioral Brief Therapist (CBT), EASEL Coach (Experiential Social Emotional Learning and Therapy) Lena Lassila¹, Psychiatrist, Psychotherapist (Cognitive Analytic Psychotherapy), Riding Therapist, Leader of Finnish Equine Facilitated Therapies Taina Mustapää², PhD, psychologist, psychotherapist (Cognitive Behavioral Therapy (CBT), Equine Assisted CBT) Alice Keski-Valkama³

¹Lena Lassila, Tornio, Finland, ²Taina Mustapää, , Finland, ³Alice Keski-Valkama, , Finland

Presentation format: Poster

Themes: Social and Emotional Difficulties

Authors:

Lena Lassila, Occupational Therapist, Riding Therapist, Mindfulness Based Cognitive Therapist (MBCT), Cognitive Behavioral Brief Therapist (CBT), EASEL Coach (Experiential Social Emotional Learning and Therapy) Taina Mustapää, Psychiatrist, Psychotherapist (Cognitive Analytic Psychotherapy), Riding Therapist, Leader of Finnish Equine Facilitated Therapies

Alice Keski-Valkama, PhD, psychologist, psychotherapist (Cognitive Behavioral Therapy (CBT), Equine Assisted CBT), Riding Therapist

Title: The Polyvagal Theory as a potential background theory for therapeutic riding

Background: The Polyvagal Theory by Stephen Porges provides a new insight into adaptive of the autonomic nervous system (ANS), and links the evolution of the ANS to social engagement, trust, and intimacy (Porges, 2009). Neuroception refers to a neural process that enables humans and other mammals to engage in social behaviors by distinguishing safe from dangerous contexts. It has been shown that sensory stimulation, vestibular movement, and proprioceptive movement promote sensory integration and which influence neuroception of safety (Porges, 2011). These all are the key elements of therapeutic riding.

Objectives: The purpose of this pilot study is to introduce the Polyvagal Theory more detailed and discuss it as a potential theoretical background for therapeutic riding.

Material: Theoretical review and discussion.

Conclusion: The Polyvagal Theory has a potential to explain the processes of therapeutic riding and helps us understands the holistic and effective nature of therapeutic riding.

References:

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Overcoming Obstacles: Breaking barriers in the lives of survivors of violence and abuse through Horse Agility and Competitive Western Trail.

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Funded by Comic Relief with money from the tampon tax, the Overcoming Obstacles project is run in partnership between Gorwel Domestic Abuse Service and the Welsh Institute of Therapeutic Horsemanship (WITH). It operates from two WITH approved centres in North Wales, one in Gwynedd and the other on Anglesey and is staffed by a PATH certified riding instructor, trained Equine Facilitated Learning practitioners and dedicated domestic violence workers. All of the therapy horses involved have been rescued and rehabilitated from situations of abuse and neglect. The project uses Competitive Western Trail Riding and Horse Agility to enable women and girls from aged 3+ who are survivors of violence or abuse to develop essential life skills, build confidence, improve mental and physical health, create social networks, gain leadership skills and access employment and training.

Participants take part in weekly hour-long sessions that begin with ground-based horse agility sessions where each woman learns how to bond, communicate and interpret the behaviour of their equine partner. They work up to taking part in Competitive Western trail, a sport that involves riding over a variety of man-made obstacles and, as their confidence grows, can choose to participate in Mountain Trail which requires the horse and rider to navigate fixed man-made and natural trail obstacles with confidence and skill. As riders learn to literally overcome obstacles with their horses, they begin to become physically and mentally healthier. Through meaningful physical activity in the outdoors, they reclaim a sense of ownership of their own bodies and building empowerment and self-esteem.

As they learn to care for and communicate with horses, participants learn about self-care and transferable social skills which will help them to create more positive relationships in all areas of their lives making them more resilient and less vulnerable to abusive relationships in the future. The project also creates opportunities for peer support, developing social networks amongst women from similar backgrounds and helping to reconnect families.



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Group games with one horse lead by for adults serve more kids as possible

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Group games with one horse lead by for adults serve more kids as possible

The experience of how to make kids join the games with high participation level and maximize the number of kids as many as possible in limited source.

Instead of waiting , kids all join the hippotherapy program within an hour with one horse.

Set up three wooden box, some pictures and sand begs. Group games lead by four adults.

Kid-A riding on the horse with horse leader and sidewalker. Kid-B stand on a box waiting Kid-A for interacting guided by instructor and Kid-C or Kid-D stay in outfield answering some question of game with teacher.

After finishing questionnaire, Kid-C or Kid-D will join box game together. Every three laps kids ride on the horse in turn.

Every kids could ride six laps (two rounds) on the horse for physical and psychological benefit, interact with other kid and instructor over eighteen times for social benefit and answer the questionnaire task with teacher three times for cognitive benefit.



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Horses, Mandalas and Families: development group of family members and caregivers, practitioners of equine therapy

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Introduction: mandalas are used as symbolic representations of the human psyche, since they express the “self”, and a totality in the process of individuation. The group learning is used to raise the awareness of your condition entirely in the existential context. While the individual works to find out who it is and what it will be, the activities with horses is mediated by a qualified professional, can provide the experience of acceptance and belonging. In this context, the mandalas, the group learning and the horses were resources to work for families and caregivers of practitioners of equine therapy. Objective: The present study had as objective to work out new perspectives for self-development. Materials and Methods: there Were 30 adult participants, the majority being female (87%), divided into six groups with a monthly frequency; the meetings were in a centre of equine therapy, in the interior of São Paulo state. Instruments used: assessment constructed by the team responsible and applied at the end of the group, and verbal reports of the recorded by the team during the group dynamics. Results / Discussion: analysis of the assessment shows that 100% of the participants liked to attend some of the meetings and 97% believe that the group has been a tool of development and self-knowledge. In the evaluation descriptive qualitative wrote phrases like: “that Was important, has awakened in me, a self-knowledge, so that I could change my attitude, making me stronger to have the courage to do what was needed to be able to have the quality of life for myself and my family.” In the verbal reports of the participants were present the words: confidence, self-knowledge and direction. The skills and potential were recognized by the members of the group, going to the meeting that it was intended to work from the beginning, the self-development and awareness. Conclusion: we Can conclude that these results can be replicated and tested in other centers of equine therapy to extend the benefits of the horse, to subsidize new research and interventions for similar group



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Examining the Impact of Equine Facilitated Psychotherapy (EFP) on PTSD Symptomatology among Residential Foster Youth

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Background and statement of problem:

Foster youth have high rates of trauma exposure and are significantly more likely than the general population to have experienced abuse. Traumatized youth are often averse to traditional talk-therapy, which frequently fails to create rapport. Equine Facilitated Psychotherapy (EFP) has gained recognition for success in reaching at-risk youth by improving self-esteem, depression, personal adjustment, and managing stress. However, little research has evaluated EFP's impact on trauma related symptomatology.

Study aim and objectives:

The study aims to evaluate the impact of a 12-week EFP program on social emotional difficulties, particularly with regard to PTSD symptomatology among residential foster youth.

Study design:

The study utilized a pretest/posttest/follow-up design.

Study population and sampling:

The study population is foster youth ages 10-17 in residential care.

Data collection methods and measures:

Participants completed baseline assessments prior to and following participation in 12 weekly, 1.5 hour EFP group sessions. Follow up assessments are given quarterly to gather longitudinal data. Assessments addressed social and emotional well-being, and depressive and anxiety related symptomatology. We examined post-traumatic stress disorder symptoms using a trimmed version of the Child PTSD Symptom Scale-Interview (CPSS-I; Foa et al., 2001)

Data analysis methods:

Repeated measures ANOVAs and Chi-square analyses for parametric and nonparametric variables were used to examine whether there were statistically significant reductions from baseline to post intervention for continuous and dichotomous variables respectively.

Duration of study:

The study involved a 12-week intervention of 1.5-hour, weekly EFP sessions. In addition to baseline and post survey completion, follow-up survey data is being collected at quarterly intervals for up to one year post baseline.



Outcome/Results:

At post, participants reported enjoyment working with the horses (97%) and improvement in cooperation/self-esteem (81%), emotional control (77%), and improved emotional expression (91%). For those reporting moderately-severe to severe PTSD symptoms (73%), results indicate significant reductions in a variety of PTSD symptoms and their impact on significant others, including thoughts, images, nightmares, and upset feelings.

These preliminary findings offer support for EFP for improving the psychological well-being of foster youth, a population with great need for innovative and effective services to address trauma.



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Research on the treatment of child sexual abuse through equine therapy in Chile

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RESEARCH ON THE TREATMENT OF CHILD SEXUAL ABUSE THROUGH EQUINE THERAPY IN CHILE

Background and statement of problem:

Child sexual abuse is an increasing problem worldwide, and the available treatments stretched over a long period of time, which lasts for an average of 3 to 4 years before the child can achieve significant improvement.

Equine therapy as a form of treatment for child sexual abuse has been studied previously but the therapies did not last long enough for the children to get the potential benefits of this treatment.

Study aim and objectives:

Develop a pilot study of therapeutic treatment for child sexual abuse, prolonged through 40 sessions, with the use of Equine therapy.

Furthermore, to get to know the significant advantages of a treatment in the field of Equinotherapy.

Study design:

pilot study, with both qualitative and quantitative methods.

Study population and sampling :

6 patients, 3 boys and 3 girls, victim of child sexual abuse. The children were suggested by SENAME (National Organization of protection for Children) and the Chilean investigation police.

Data collection methods sampling:

6 children were chosen by the SENAME, based on the support of the family in the participation in this research.

Data analysis of study:

The data analysis was carried out through the triangulation process, in between the Equine therapist, the Juridical Psychologist and the responsible adult, during the session number 16, 24, and 38.

Duration of study: 40 weeks



Outcome/ results :

strengthening of the communication of the children with adults, an increase in self-worth, increase in expressing their decision, their self-care and the care of others.



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Program of intervention with horses for the treatment of emotional and behavioral problems in children

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Behavioral and emotional problems are a risk factor that can affect the child's environment. It has been proven that horse-assisted therapy has positive effects on human behavior (Gonzales-Ramírez, 2013). According to Pellitero (2016) the contact with animals is very beneficial in educational therapies or cognitive level, communicative or personality and behavior. That is why the objective of the present study was to test the effectiveness of the intervention program with horse for 10 sessions in 10 children participated in the study, with an average age of 11 years. The results showed improvements in the following areas: Motivation: all the caregivers noticed that the children were motivated to the therapeutic sessions and they stayed that way throughout the week. Confidence: all caregivers noticed an increase in the safety of the children since they noticed more extroverts after the 10 therapeutic sessions. Socialization: primary caregivers perceived an increase in children's social behaviors, they saw them more open and more willing to engage in conversations. Stress: the primary caregivers perceived a decrease in the stress levels of the children as the therapeutic sessions progressed.



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A Phenomenological Study of Students' Experiences of Equine Assisted Learning and how These Experiences may Impact on Their Behaviours and Attitudes

Siofra Hayes Moriarty

A Phenomenological Study of Students' Experiences of Equine Assisted Learning and how These Experiences may Impact on Their Behaviours and Attitudes

This research study aims to explore an Equine Assisted Learning (EAL) intervention as experienced by a group of adolescents and the impact their experiences of these sessions may have on their social and emotional development. EAL programmes are becoming more frequently implemented as interventions, especially for young people 'at risk' or who may have social and emotional behavioural difficulties (Carey 2016; Pendry, Carr, Smith and Roeter, 2014). The relationship between strong social and emotional development and more positive outlooks in life have been studied in depth over the last several years, while the link between participation in EAL programmes and positive changes in social and emotional development being increasingly researched. The intention of this research study is to gain a detailed insight into the experiences of adolescents participating in EAL sessions and the significance of these experiences to them. A phenomenological approach was selected for this research study as it supports the study of direct personal experiences and examines behaviours as impacted by the 'phenomena of experience' (pg. 23, Cohen 2000; as cited in English and English 1958). A purposive sampling method was used to select the participants for this research study whose ages ranged between 13-16 years old. Participants were identified by the school as young people who would benefit from attending Equine Assisted Learning sessions, due to social and emotional behavioural difficulties displayed or concerns in relation to their engagement with school. Data for the research study was obtained by conducting in-depth semi structured interviews, based on open-ended questions and results will be presented.



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The impact of equine facilitated programmes on the emotional intelligence of children affected by socio-economic disadvantage

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¹*Festina Lente, Bray, Ireland*

Introduction

Emotional intelligence is a concept based on how well an individual or group deals with emotions. Daniel Goleman's (1996) approach to emotional intelligence has five basic competencies: self-awareness, self-regulation, motivation, empathy, and social skills. Goleman (Emotional Intelligence, 2008, 317) further defines it as, "the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships." Others define it as the "perceiving, using, understanding, and managing emotions" (Mayer and Salovey, 1997). Emotional intelligence is a set of interrelated skills that allows people to process emotionally relevant information efficiently and accurately (Mayer, Caruso, & Salovey, 1999).

Horses communicate non-verbally and rely on immediate feedback from their environment to survive. It is this communication dynamic between horses and humans which provides a rich learning environment- one full of relational problem solving that allows people to learn emotional sensitivity, self and social awareness, self-management and effective communication skills and strategies. By working with horses, the children involved in the programme were given the opportunity to work individually and as a team to problem solve, use non verbal communication, express opinions and self reflect through a variety of equine facilitated exercises.

Methodology

The Equine Facilitated Educational Programme sessions were delivered between September 2016 and Easter 2018 for 3 hours each day for 3 groups of young people. Trait Emotional Intelligence Questionnaires (Petrides, Pita, & Kokkinaki, 2007) were given to both students and teachers at the beginning of a term and on completion of the programme. Two groups of students attended for the full school year and two groups changed students each term equaling a total of approx. 30 students.

Results

Initial findings have shown a statistical significant difference between T1 and T2 in emotional intelligence for students. $P < 0.05$ ($P = 0.026$). With regards to the teachers there was no statistical significant difference in emotional intelligence: $P > 0.05$ ($P = 0.533$). However, there was an increase in the mean average from 4.2806 to 4.3901. Based on gender, males had a statistical significant difference: $P < 0.05$ ($P = 0.01$). However, teachers saw no statistical significant difference but there was an increase in the mean average from 4.2000 to 4.3371.



The female results did not see a statistical significant difference with a decrease in the mean average of emotional intelligence. However, teachers saw a statistical significant difference: $P < 0.05$ ($P = 0.043$).

Conclusion

At present, the results show that involvement in an equine facilitated programme shows an improvement in emotional intelligence across the board with male emotional intelligence increasing more than females.



Theme 12 – Social Inclusion



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ATAC – a horse assisted inclusion program in Portugal for citizens at social risk

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¹Atac - Associação De Terapia Assistida Por Cavalos, Canelas, Vila Nova de Gaia, Portugal

ATAC – Horse Assisted Therapy Association, a recent non-profit organization in Vila Nova de Gaia, north of Portugal, sees horses as common places for everyone to learn to live together. Vila Nova de Gaia is a highly populated area with a high percentage of people at risk of social exclusion, due to poverty, violence, addictions, and physical or mental disability. ATAC focuses on therapeutic, leisure and sports activities suitable for everyone, in an inclusive perspective: all citizens participate according to their characteristics. Its major aims to be accomplished are the person's development and inclusion in the community. An effort is done to include and to create bonds between children, teenagers and adults of all levels of functioning, disability, health and background. After individual assessment and specific aims establishment by ATAC's professionals, individualized strategies are developed to respond to the individual's needs. To operationalize inclusion, individual therapy is included among mainstream horse riding lessons. Also, cooperative leisure and learning activities are developed in a farm with the participation of the community (riders, families, schoolmates, friends and sympathizers). Furthermore, riders with less severe characteristics collaborate in the volunteers' team to help to manage activities with younger or more disabled riders. Support to families is also provided, as well as collaboration with schools and other institutions. As inclusion is intentional and carefully planned, results have shown, in practice, an increase of one's well-being, higher interpersonal respect and appreciation of differences and similarities. Also, it was verified a higher motivation to participate in society.



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SUMMER CAMP KETHIS - "We can all be part of this party!"

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Background and statement of problem

The present study is to show how a week long summer horse riding camp can engage typical development children (6-15 years old) with horses, therapeutic riding as well as with people of the same age with mental and physical disabilities.

Study aim and objectives

The aim of the project is inclusion and integration. All children are in the same camp, take part in the same activities, learn the value of volunteering and co- operation, socialize, create bonds and make friends. It's important to mention that all the above were horse centered.

(objective) Through a fun way children discover the nature of the horse. They learn to deal with horses as part of society and as a human partner. They become aware of hippotherapy, therapeutic horse riding and horse riding as a sport. They also gain an understanding of disabilities, interact with people with disabilities and "get in their shoes". They could possibly become future volunteers and be ambassadors of our work at KETHIS (HETRICS) around the world.

Study design

This is an experimental study so no statistical analyses and data are presented.

Study population and sampling

100 children in total (25 at each camp)

Data collection methods and measures

The results are obtained through the clinical observation and questionnaires that were given to children, their parents and the volunteers who participated in the Camp.

Duration of study

Four weeks in total divided in four individual camps (1 week each).

Outcome/Results

Through multisensory activities the participants learned a great deal about horses and how they can be properly "used" by humans in order to offer their assistance as well as great joy. There has been no mistreatment of children with regard to the animals or the disabled children who participated in the camp. Instead they have created friendships and worked together perfectly. They acquired knowledge about the benefits of therapeutic riding, disabilities, and most importantly, they have learned, in an experiential way, that we can all be successful in our own way. We are all equal. We are all horse pals.



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Giramundo Project: interactive vaulting as a socio-educational strategy

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Giramundo Project: interactive vaulting as a socio-educational strategy

The aim of the present study is to elaborate, develop and apply a programme of educational intervention using interactive vaulting.

After a literature review the objectives of the project were established: using the horse as a paramount tool along with carefully planned activities in order to foster team work, shared responsibility and build self-confidence, which are intended to further interpersonal skills such as interaction and communication.

Forty children in four different groups, age between 10 and 12 years old in social vulnerability as well as showing a problematic behaviour pattern participated in the project developed in São Paulo State Military Police, through the Regiment of Cavalry “9 de Julho”.

For eight months, once a week and for an hour and a half, these children took part in the interactive vaulting project, whose routines included cooperative games, stretching exercises as well as performing movements on a stationary vaulting barrel, on a horse at halt and a moving horse. They also practised how to use the equipment and handle the horse.

The evaluative approach used was CBCL 6-18 (Child Behavior Checklist). The professionals involved in the project observed children’s attitudes and behaviour closely, keeping records of each session and its outcome.

The high rate of acceptance and satisfaction were among the most important results noticed, paving the way for further projects in the area. Empirical evidence of a positive effect on behavioural patterns were observed even after the end of the programme.



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From therapeutic riding to recreational and sport riding and employment

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Background and statement of problem:

The people living with physical or psychological problems and different disabilities are in a really difficult situation in Hungary as very few workplaces employ people with changed working ability. Even where there is any such there are only a few types of job opportunities to choose from. Most of these people are referred to their parents, their family even in their adulthood. It is a big issue for these families to find an appropriate job opportunity, a meaningful occupation for their disabled young adult relative after the completion of their studies.

Study aim and objectives:

I would like to briefly introduce the life story of a boy with mental retardation through a case description. I would like to present how he got from therapeutic riding to recreational riding and sport riding and to successful employment. His case represents the available results of therapeutic riding and equine assisted learning and the motivation given by the connection with animals and the work with horses – which have become the purpose of his life in the long run.

Study population and sampling:

- 1 person (boy) with mental retardation

Data collection methods and measures:

- medical examinations
- opinion and examination of an expertise and rehabilitation committee for learning skills
- individual development plan, therapeutic documentation
- video recordings, photo documentation
- interview
- questionnaires: Satisfaction With Life Scale SWLS, Lifestyle Satisfaction Scale (LSS), Positive and Negative Affectivity Schedule, PANAS, WHO's wellbeing questionnaire (WBI-5), HA7 mood face scale

Duration of study:

- from 9 to 19 years of age of the boy (2007-2017)



Results:

Tibor has successfully settled into the Hungarian Riding for the Disabled Federation's therapeutic riding centre in Fót where he is employed since the September of 2017. The results of the questionnaires and of the interview show that he is satisfied with his life, his mood is positive and he has found a job and activity that brings him joy.



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Creating Job Opportunities for riders with disabilities within their EAA & EAT Programme - The JPP Project

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The project illustrates how a particular equine assisted programme enhances the physical, psychological, social and emotional well-being of three riders.

It is called “Job Preparation Programme” (JPP), started in September 2017 in Athens at ELETHIP and includes three (3) young people. These people (one girl and two boys) are attending equine assisted programmes for many years. Two of them are facing physical and mild mental disabilities & one of them has physical deficit. They all started to attend Hippotherapy sessions at about the age of 9 and gradually at their early teens they got involved in independent riding and competing.

They are riding two times/week, but they are also attending the JPP which includes the following: coming as trainees (both theoretically and practically) for at least 8 hours per week at the association for providing help in all the stable/horse/session daily routine (such as mucking stalls, handling equipment and horses, grooming, feeding, being helpers during EAA/EAT sessions, etc.). Their progress is being assessed every month, through a scoring sheet. They are expected to be ready for potential part-time jobs by the end of 2018.

For the time being, the JPP - although it is a new project in Greece – has already showed very promising results and provides real working environment to these young people. The equine assisted field and the equine field in general, are very pleasant and suitable environments for a rider with disabilities to work happily and productively.



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The CEEQ Project: The development that comes at gallop.

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Brazil has 24 million people with some type of disability, which represents 14.5% of the population. The Northeast region has the highest percentage of people with special needs. The CEEQ is located in Recife capital of Pernambuco in the northeast.

Objectives: Is to present the Elohim Hippotherapy Center of Pernambuco - CEEQ, founded on November 08, 2009, is a civil, philanthropic, therapeutic, educational and assistance entity. It has an agreement with the State Department of Health, being part of the assistance network to follow up patients in rehabilitation of neuropsychomotor development. It has a multiprofessional team composed of: physiotherapist, occupational therapist, speech therapist, psychologist, riding instructor and guide assistants. It offers services in Hippotherapy (HPOT), Equine-Assisted Therapy (EAT), Equine-Facilitated Psychotherapy (EFP) and Equine-Assisted Learning (EAL).

Methods: It's a case report follow up from many cases. At HPOT, it serves 120 practitioners for free. The practitioners have different diagnoses, the most frequent being: neuropathies, syndromes and invasive developmental disorders. The ages are also varied. From 18 months to 80 years. Each practitioner is followed for two years with a weekly session during 40 minutes. The objectives to be achieved involve four fields: Relational, psychomotor, cognitive-behavioral and equestrian.

Results: We will illustrate in the presentation with photos and graphs the longitudinal statistical monitoring of 50 cases of the practitioners attended in the last 2 years and their evolutions according to our criteria of follow-up in the four fields mentioned above.

Conclusions: This review found evidences to variety of evolutions in the cases followed.



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Inclusion and work with adolescents from social, cultural and economic critical contexts in a equestrian rehabilitation center in CENAFRE-URUGUAY

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In 2010, at the Center N ° 1 of CENAFRE, we began to develop a pilot project, with the NGO Botijas, which serves and works with children and adolescents with a critical social, economic and cultural context, in a peripheral area of the city of Montevideo.

We started working with a group of 10 teenagers and at the beginning, the main idea was to provide them with a recreational space where they could have contact with the horses and their surroundings, but with the passing of the sessions we could appreciate the positive benefits that we were collecting. at the end of the same and those objectives that were very basic were transformed into more ambitious proposals and with more and more content and with more objectives to raise and comply.

With the support of the referents of the NGO and the center's multidisciplinary team, different work strategies were developed, which we call: "EQUINOTERAPIA SOCIAL".

Among the different proposals were the care and maintenance of the horse, its stable and equipment, initiation to the riding, basic horse riding and tumbling, course of auxiliary guides in therapy sessions with patients with different disabilities, notebooks and work agendas where they registered the new knowledge and did homework. We emphasize that many of these children had horses in their homes with which their families made the classification of waste in the city and the welfare of those equines change very positively because of the knowledge that these young people were acquiring.

Nowadays, under this modality, we work with 6 more institutions in Center No. 1, serving a population of 60 students and with more than 20 other institutions in the other centers belonging to CENAFRE throughout the country.



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An exploratory study of access to equine facilitated programmes and their benefits for people with intellectual disabilities

Kirstin O'Neill¹

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People with an intellectual disability (ID) often aspire to being more socially included. This finds expression in a desire to engage in more community activities (O'Rourke et al. 2004) and to have more friends (Froese et al. 1999). An increasing number of studies internationally have documented the limited access that these individuals can have to community amenities and their dearth of acquaintances and friendships (Myers et al. 1998) Despite many policy initiatives (Sports Ireland 2007) being put in place by the Irish government to offer equality for those with intellectual and physical disabilities within sports there are still many difficulties in accessing suitable activities that don't segregate those with intellectual disabilities from 'mainstream' participants. Hanson (2002) states that restrictive environments control access to social spaces, as a result it can easily be established who does and who does not 'belong'.

The Supported Helper Programme in Festina Lente was set up as a socially inclusive programme to allow those with intellectual or physical disabilities work on an equestrian yard as 'helpers'. Often, working alongside 'mainstream' helpers enabling those who take part in the Supported Helper Programme to be part of the team in Festina Lente and contribute to the running of the equestrian yard.

Previous studies on this programme reported that those who had taken part in the programme had become more responsible in caring for the horses, increased in independence, willingness to help at home and self-management, developed greater confidence in carrying out tasks and improved in complying with tasks requested of them (Connaughton, 2014).

This presentation will outline the content of the Supported Helper Programme including an overview of the profiles of those that engage in the programme and the variety of roles that they take on. It will also include a presentation made by some of the participants of the Supported Helper Programme and some parents of those who take part to give personal accounts of the benefits of this programme.



Theme 13 – Equine Education & Training



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The Effects of Cuencos Tones on the Behavior of Therapy Horses

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The behavior of horses during therapy sessions needs to be consistent as much as possible. However, therapy horses may become stressed and anxious or passive and unalert. It would be beneficial if there was a way to increase or decrease the energy of therapy horses to better serve their clients. Some clients need energetic movement and increased arousal of their therapy horse while other riders need passive movement and decreased arousal of their therapy horse. The purpose of this project was to determine whether musical tones, as played from quartz cuencos, could affect the behavior of therapy horses. Specifically 5 therapy horses from CARAE-Santa Cruz in Guadalajara, Mexico were released in an indoor arena. A master yogi then played a scale of tones on "cuencos de cuarzo." The behavior of the horses was recorded and analyzed for each tone in the scale. Results indicated that certain tones increased the arousal and activity while other tones decreased the arousal and activity in the therapy horses. Therefore it may be possible to use musical tones to help therapy horses maintain the desired behavior for the sessions and to decrease presence of stress and anxiety.



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Self-experience - a true innovation in education and training of equine therapists for their role.

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As we know from meta-analysis (Prochaska, Norcross, 1999) the personality of a therapist is the most important tool at his or her work. Our true self is revealed during this work even if we do not want it to happen because the horse reacts the same way with therapists as with their clients (Gundlach, Stumpf, 2006). The studies of Dvorakova, Elfmark, Peham, Janura, Svoboda (2006) say that therapists' personality, his/her self-awareness, personality characteristics make in high level influence to horses' wellbeing, to its behavior during the therapy and also to its way and quality of movements during therapy. It means that self-experiencing of specialists in their training for profession can in high level influence the therapeutic effect on clients.

According to study of Drobná (2010) who was matching personality of effective therapists working with horses with model of effective psychotherapists we can see that including of self-experiencing in training of therapists working with horses makes them more effective.

Therefore during the training of therapists they should themselves experience the processes between the human being and a horse and also the activities we usually propose to our clients. Therapists working with horses need space where they can:

- Gain the first-hand experience with horses – i.e. self-experience;
- “Meet themselves” when being in contact with horses – i.e. meeting the true self (whenever they want to and are ready for this challenge: from learning about themselves up to working on themselves – self-development).

Our studies (1997-2017) show that such experiences allow therapists discover both new horizons related to the influence of the method - equine therapy and the knowledge important for practice.

As the integral part of education of specialists, self-experience is a process within the confines of which experts participate in real situations and interactions with horses with the emphasis put on their own inner experiencing. This is the way how authentic professional awareness and authentic professional competencies of specialists are shaped. To make specialists ready for profession we should combine handing on of the necessary knowledge, practice, "self-experience" as well as "meeting therapists themselves" with horses and also supervision.



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Comparison of the sitting point kinematics of the free walk with motion analysis in different hippoterapeutic horses

Dr. Péter Jámor¹

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Fourteen horses, trained for hippotherapy, were used to study the stride kinematics of the free walk. The horses were led in free walk and recorded with two digital video cameras in a sagittal plane at a rate of 25 frames/s. Ten strides per horse were analysed with Ariel Performance Analysis System. Descriptive statistics for the linear, temporal and hippotherapeutic stride variables were determined. Results of ANOVA and Duncan's Multiple Range test indicate that the kinematics variables of horses were significantly different. The important hippotherapeutical motion characteristics were measured and their therapeutical effects were determined for each horse individually. Correlation coefficients between the equine conformation and kinematic variables were measured. Significant correlations were observed between sitting point height and step- ($r=0.77$) and stride length ($r=0.75$) and the same correlations were found with sitting point – tuber coxae distance ($r=0.77$ and $r=0.81$). Significant correlations were not observed between hippotherapeutic variables and body parameters. This method is suitable for assessing and comparing horses used in hippotherapy and to associate them to individual therapies.



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Hippotherapy Education and Research - Situation in China

Dr. Shuping Li¹

¹*Hubei University, Wuhan, China*

Background: China is one of the big horse raising countries in the world. It is also a country with a large population of nervous diseases. There are 6 million patients with cerebral palsy in China, including nearly 2 million 0-6 years old children, and increase 40 to 50 thousand new children patients every year (2016). The number of autistic patients are more than 10 million, include over 2 million 0 to 14 years children, and grow at a rate of 20% a year (2017). Though the role of the modern horse industry to promote social development has been recognized, only the handful disabled children can really receive formal rehabilitation. Not to mention effective equestrian therapy.

Objectives: The aim of this study is to present the situations of horse-assisted therapy education and research in China and to explore the feasible development direction of hippotherapy with reference to the experience of the advanced countries and regions.

Methods: The studies and reports published in Chinese or English collected in Scholar.Baidu and Medline database with preferred items of "Hippotherapy and China" and "Hippotherapy education and China" until October 2017 were analyzed by means of systematic review.

Results: The term "Hippotherapy" began to appear in Chinese media since 1998 when equestrian medicine in overseas and its function were introduced (Li, 1998, Zhang, 2001, Li, 2002). There were small scale equestrian medical rehabilitation practices for disabled children in only two cities (Beijing, 2006 and Chengdu, 2008). There were fewer studies and less cases on hippotherapy to children with cerebral palsy or autism (Sun, 2014, Wu and Li, 2015). Meanwhile, there were studies on design of gymnastic simulation horse (Li, 2008, Zhang, 2009, Wei, 2010, Feng, 2011, Wu and Yao, 2017) and simulated equestrian therapy in rehabilitation training for children with cerebral palsy (Wang, 2010).

Conclusion: The concept of equestrian medicine has begun to be known in the mainland of China. A few works on the development of the simulation horse have been done, especially in the design of simulation horse for therapy. It is imperative that strengthening hippotherapy education and training equestrian rehabilitation talents.



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Equine-Assisted Activities and Therapies at Universities and Colleges: Perspectives from the United States

Nina Ekholm Fry¹

¹Institute for Human-Animal Connection, University Of Denver, Denver, United States

Study title: Coursework in equine-assisted activities and therapies at universities and colleges in the United States

Background and statement of problem: With an increasing number of U.S. universities and colleges offering coursework in equine-assisted interventions, without national coordination or inter-program communication, a number of questions arise: how many courses are currently available for study? What is the content of these courses? Which departments and programs offer such coursework? It is also important to evaluate the applicability of such academic programs. Terms such as accreditation, certification, certificates, and the role of regulation are important to understand in this context. A 2017 study (Ekholm Fry, in press), presented here, determined the prevalence of coursework in the U.S.

Study aim and objectives: To determine location (state), focus area (content), department (program), and level of study of academic coursework in equine-assisted activities and therapies in the United States for the 2016-2017 academic year.

Study design: Systematic review.

Study population and sampling: Higher education institutions in the United States offering coursework in equine-assisted activities or therapies.

Data collection methods and measures: Coursework was identified through a review of academic programs offering equine-specific coursework listed in the 2016-2017 course catalog or otherwise by the academic institution. A total of 110 courses met inclusion criteria related to course format and content.

Data analysis methods: Basic descriptive analysis.

Duration of study: March-May, 2017.



Outcome/Results: A total of 38 academic institutions in the United State were identified with coursework in the following areas: therapeutic riding/horsemanship, equine assisted mental health, equine assisted learning, and hippotherapy. A fifth area of coursework, a singular survey or overview course, was also identified. A total of 110 courses were offered in the 2016-2017 academic year, with the majority of of coursework offered at an undergraduate level versus graduate level. There are 29 states where either one or two academic institutions offer coursework related to equine-assisted activities or therapies and exactly half of the programs offered coursework through agriculture or animal science departments, and the other half through social science or liberal arts-related departments. Challenges such as use of terminology and professional application were identified.



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Sharing Minds – Equine-Human Intersubjectivity in Equine Assisted Psychotherapy

A Suggested Theoretical Framework and Meta-Analysis

Ms Katarina Felicia Lundgren³

¹Horse & Nature, Torna Hällestad, Sweden, ²Lund University, , Lund, Sweden, ³MiMer Centre, Torna Hällestad, Sweden

I am suggesting a theoretical framework to explain equine-human interaction in EAP, from a cognitive science point of view.

What is it that adding horses do to therapy? How and why does it enhance therapy?

The theory of intersubjectivity is used in diverse academic fields, amongst other things, in looking at relationships between infant-caregiver (also in non-human animals), the relationship between teacher-student as well as the relationship between therapist-client. I suggest that it also can be used in investigating and explaining the relationship between horse-client.

The theory of intersubjectivity goes beyond the attachment theory and also explains the process of learning to become a human that exists in a social and cultural context. It builds on the work of Harlow, Piaget, Bolwby, Ainsworth, amongst others, but also on the work of Husserl and Habermas, as well as Atwood, Stolorow and Orange that have developed intersubjective psychotherapy and psychoanalysis and whos work can be summerized with the words “making sense together”. The learning is in the sharing of an experience.

I am drawing from all this research and thinking, but mostly from cognitive science research and furthermost research based on Trevarthen's work with infants-caregivers, his “science of the shared mind”, the Theory of Innate Intersubjectivity. In 2012 Siporin proposed that the theory of intersubjectivity could be used to describe the relationship between horse-client and why introducing a horse into the therapeutic setting could be beneficial.

Forming a theoretical framework will help the field of EAP to move forward. It will help in describing what happens in the work and give providers a common language and terminology, but will also demystify the process and leading to expanding knowledge, as well as progression in the work. But also deepen the understanding of equine-human interaction in psychotherapy and helping providers to understand the role of the horse in therapeutic settings.

This presentation is part of my masters' thesis in cognitive science, but also based on my experiences as an equine specialist within the field of EAP.



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Impact of Terminology on Research and Reimbursement – a Global Look

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¹American Hippotherapy Association, Inc., Fort Collins, United States

Study title: Impact of Terminology on Research and Reimbursement

Background and statement of problem: This will review current inconsistencies and trends in terminology in EAT and EAA and how it is currently impacting research and reimbursement. Research is growing in our field, however, inconsistencies in reporting make it difficult for larger systematic studies and meta-analysis for larger comparisons. These challenges continue to lead to confusion on services provided and insurance denials.

Study aim and objectives: This talk will cover current trends and terminology across the world, relate it to current trends and challenges in research and reimbursement; then address potential ideas for the future which will allow us to work collaboratively to address these challenges.

Study design This talk will include some qualitative and quantitative analysis of current trends in terminology, research and reimbursement.

Study population and sampling This presentation will be a review of HETI member organizations and related organizations where information is readily available as well as outreach to individual practitioners of both EAT and EAA internationally. A sample of current research and research finding will be referenced as well as they relate directly to these topics.

Data collection methods and measures Research of information via internet for comparisons, email surveys, and some one on one interviews with practitioners and researchers.

Data analysis methods Many of the trends I will be sharing will be pulled from interviews (qualitative research) and correlations made from discussion with industry professionals internationally. Then making comparisons with international data to the more quantitative data AHA, Inc. currently has on practitioner challenges in the US. Then evaluating the correlations to figure out

Duration of study This is not a true research project but is a topic where trends will be shared and correlations made.



Outcome/Results To share challenges we see and hear and develop a way of looking at them with a goal to begin discussions which may allow a path to evolve for future education oh ways for practitioners to help resolve them in the future.



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My Horses My Healers

Ms. Shelley Rosenberg¹

¹*My Horses My Healers, Winter Park, United States*

As a survivor of childhood sexual abuse, herself, Shelley is acutely aware of noticing visually everything in her surroundings. As a child she rode horses bareback and became curious about why she rode with curled toes. Her friends' toes weren't like that. Except for one friend whose brother suicided! In her 40's Shelley became an equine facilitated learning educator and began co-facilitating psychotherapy intensives with a psychotherapist. She always asked people why they thought their toes were curled up or clenched downward instead of relaxed flat. She got unexpected responses. Once Shelley brought awareness to clenched toes people could see how it affected their breathing, the psoas, the pelvis and how the tension communicated to the horse and even to other people as they sat together in a group. Some people noticed that they also clenched their fists.

Very often people were moved to share this story for the very first time in this supportive group setting with horses. Often they had been in conventional talk therapy for extensive periods and had kept this one secret. Or they had told the therapist only part of the story. It is surprising and hopeful that so much opening up can happen so rapidly in a new group setting aided by the presence of the horses and prompted by attention to the toes!

Disclosing the story is not the focus of our interest but voicing the whole story at least once to a compassionate listening other is crucial for each person. It seems to release the hold of the hidden shame and help the person move toward healing. And we can learn to listen to the feet-noticing whenever they give us the signal that stress is occurring.

The horses are enormously helpful at stress reduction because their nervous systems entrain ours to lower sympathetic arousal, balance the autonomic nervous system, relax and come fully into the present moment. They help us feel accepted non-judgmentally. In addition, riding with an enlightened and supportive instructor, can help us feel strong, free, hopeful, empowered, heart and body and mind aligned.



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Supporting Volunteers at RDA UK

Mr Matthew Cobble¹

¹Riding For The Disabled Association UK, Warwick, United Kingdom

At RDA UK we have over many years developed a sophisticated system to train and support the volunteering which takes place within RDA sessions. However, for our participants to take part in their session, volunteers carry out a great deal of work behind the scenes, all of which affects the overall experience of therapeutic riding.

Our latest training programme was developed to specifically support the non-equestrian functions of our groups and upskill volunteers in seven key areas – disability awareness, customer service, safeguarding, governance, volunteer recruitment, fundraising and communications and publicity. This training was developed through a series of face-to-face workshops and e-learning modules reaching 6,500 volunteers.

We have recently undertaken research to understand the impact of this training on our volunteers and their ability to deliver and excellent experience for participants.

Attendees of RDA training over the past 2 years were contacted by email and asked to complete an online survey with 168 attendees responding.

Additionally, those who completed RDA E-learning courses were invited to complete an online survey with 128 participants responding.

This data was then analysed in terms of the overall impact on the volunteer experience, the overall impact on the participant experience and considering whether the training had brought about a change in behaviour of volunteers.

With regards to the volunteer experience this research indicated that 70% of volunteers felt that the training offer had improved their experience, with the biggest reason being increased confidence. However this extends beyond the volunteer experience with research indicated that as many as two thirds (59%) also felt that the training had benefited the participants at their group. The impact of developing skills and knowledge was felt beyond the volunteers themselves despite this training being focused on non-equestrian topics.



Our research suggests that investing in upskilling volunteers and providing a good quality training offer has had a significant impact across the organisation with volunteers confident and competent in delivering best possible experience for participants, not only in the area but in all aspects of the therapeutic riding experience.



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Horses Prefer Food over Human Contact for Task Reward and Considerations for Human-Horse Bonding

Ms Emily Kieson¹, Dr Charles Abramson¹, Ms Crystal Felix¹, Ms Summer Webb¹

¹*Oklahoma State University, Stillwater, United States*

Study title

Horses Prefer Food over Human Contact for Task Reward and Considerations for Human-Horse Bonding

Background and statement of problem

Humans use food rewards as positive reinforcement for training horses, with little evidence to show that human contact (scratching or patting) has reward value for horses or as inter-species bonding. Most equine training is negative reinforcement (Cooper, 2007; Murphy & Arkins, 2007), but food is a known positive reinforcement (Craig, Varnon, Pollock, & Abramson, 2015). Equine Assisted Activities and Therapies (EAAT) involve human-equine interactions to build interpersonal skills and empathy (Kieson & Abramson, 2016) which relies on positive interaction/reinforcement.

Study aim and objectives

This study examined human interaction as positive rewards for application in EAAT by examining the reward value of scratching and patting compared to treats based on horses' ability to use symbols to show preferences (Mejdell, Buvik, Jørgensen, & Bøe, 2016). It also explored horse-human social bonding based on the unique backgrounds of each equine subject.

Study design

Horses were trained to touch a target (X) for a treat reward (given in a bucket) after which the symbol was changed to indicate scratching (O) or patting (square) from human researcher. Each horse was then subjected to a varied sequence of targets over a period of six days.

Study population and sampling

Eleven (N=11) horses of various breeds and ages and varying backgrounds with human interaction and handling preference.

Data collection methods and measures

Number of times the target was touched, behaviors, and inter-trial intervals were recorded as well as individual backgrounds on each horse regarding previous behaviors with human interactions.



Data analysis methods

Observation Oriented Modeling was used to analyze individual and group behavioral patterning. This gave more flexibility to how this data might be used in future individual interactions.

Duration of study

Horses were trained over a period of five days and tested for six days thereafter

Outcome/Results

All horses (N=11) expressed preference for treats over human contact with no variation between those who typically voluntarily seek out human interaction versus those who avoid human contact suggesting the need for further research in horse-human bonding.



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Equine Education & Training - presentation of a training programme for welfare orientated and sophisticated handling of horses in therapeutic riding

Mrs. Marietta Schulz¹

¹*Deutsches Kuratorium Für Therapeutisches Reiten E.v., Warendorf, Germany*

Qualify in sophisticated handling of horses in social and therapeutic sectors as an essential step before starting your career as a therapist or instructor

Using horses as a partner in social and therapeutic areas, requires good and specific skills in horsemanship as well as particular knowledge about profiles in therapeutic riding.

This qualification is designed especially for requirements in all areas of therapeutic riding: psychoeducational therapy and Hippotherapy.

The training programme is based throughout on dialogue and reflection as well as on animal welfare.

Particular emphasis is put on longing and the use of long-reins as basic tools. Additionally ground- work and voltage are main topics extended by riding.

The programme is established as an alternative to the usual trainer programme in horse sport.

It is a half year programme and contains of four modules at different facilities to allow also maximum experience and ensure good quality



Theme 14 – Equine Welfare



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EMOTIONS AND INTERSPECIES INTERACTION IN EQUITATION, THEIR DETERMINANTS AND FUNCTIONS

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Background and statement of problem:
Attachment Theory (Bowlby, 1969)

The studies were of explorative character. The research concerns the determinants of emotional states and interspecies interaction in equitation, as well as the factors that influence the quality of the cooperation between a human and a horse and the level of satisfaction derived from engagement in horsemanship.

Study aim and objectives:

1. Determination of mechanisms underlying the affective processes of equestrians and the interspecies interaction;
2. Determination of factors affecting the quality of human-horse cooperation and the level of satisfaction experienced by the rider.

Study design:
Quantitative Study

Study population:
138 equestrians in the first study and 275 in the second; various levels of riding skills (from beginners to the Grand Prix level) and disciplines

Data collection methods and measures:

1. Formal Characteristics of Behaviour – Temperament Questionnaire FCZ-KT (Strelau, Zawadzki, 1997)
2. State-Trait Anxiety Inventory STAI (Spielberger et. al., 1987)
3. Interspecies Interaction in Equitation Questionnaire (authorial method from unpublished PhD dissertation)
4. Profile of Mood States POMS (McNair et. al.; 1997)
5. Horse Behaviour Inventory – the author's original method measuring the quality of human-horse cooperation, based on a list of horse's evasive behaviours during the ride (Visser et al., 2008), horse riding theory, as well as suggestions from equitation judges.
6. Equestrian Satisfaction Scale – based on Satisfaction with Life Scale (Diener et al., 1985)

Data analysis methods:



Descriptive statistics, factor analysis, regression analysis

Duration of study:

2014-2015

Outcome/Results:

- Bonding relationship with a horse decreased the level of situational anxiety experienced during horse ride and horse maintenance activities to a similar extent that this level was increased by dispositional anxiety.
- Behaviours directed at building relationship with a horse prevented mood disturbances to a similar extent that the tendency to experience mood disturbances was increased by dispositional anxiety.
- Tendency to display relational behaviours towards a horse turned out to be the strongest predictor of satisfaction from horse riding.
- Mood disturbances and situational anxiety experienced during horse ride and horse maintenance activities turned out to be the strongest negative predictor of the quality of human-horse cooperation.



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Maintaining the Wellbeing of Horses in a EAAT program

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¹Heritage Christian Stables, Williamson, United States, ²Protherapy Staffing, Ossian, USA

Background and Statement of the Problem (include references):

Many attributes combine to create an appropriate EAAT horse. Careful selection and screening helps in the initial phase of finding the perfect partner. However, continued maintenance is necessary to address the ongoing equine wellbeing of our four-legged partners. Equine Welfare is receiving a lot of attention as evidenced by the recent 2017 PATH conference presentation topics. An entire pre-conference day as well as at least 11 oral presentations addressing topics such as asymmetries, saddle fit, care, weight limits, better riding skills, et al. were provided.

A general consensus is that the following variables can negatively or positively impact a horse's wellbeing:

1. Rider Asymmetry, skill level, tone, and weight
2. Horse's asymmetry or lameness by genetics or environment
3. Saddle fit
4. Consistency
5. Alternative therapies (chiropractor, massage, etc) can improve a horse's well being.

What enables a horse to be a long term rather than a short term participant in a therapeutic riding program.

Study aim and objectives

To analyze horses in a therapeutic riding program over a ten year period.

1. Compile and quantify selection, usage, training, and interventions that were provided to individual horses
2. Identify key contributors and distractors to maintaining equine well being
3. Provide suggestions for addressing Equine Well being

Study population and sampling

40-50 Therapeutic riding horses that participated in a therapeutic riding program over a ten year period.

Data collection methods and measures

Data on individual horses is collected through record keeping systems of the EAAT center. View videotape of selected horses.

Data analysis methods



Quantitative and qualitative data will be analyzed and correlated for trends by the authors of the study with additional input as needed.

Duration of the Study

Data has been collected for the past ten years with analysis of the data occurring from July 2017-March April 2018.

Outcome/ Results

The outcome of the study is to compile data to determine trends that can help support the best methods to maintain a horse's well being in a therapeutic riding program.



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BUILDING RESILIENCE IN THE THERAPY HORSE

Mrs Julie Nicholson¹

¹*Riding For The Disabled Australia, Perth , Australia*

Background & Statement of Problem

The care and welfare of horses involved in equine therapy programs (ridden and non-ridden) includes developing resilience in the horses so they are actively and willingly engaged in the work to their own benefit, and to the benefit of the clients.

Study Design

Oral/Equine Welfare

Study Aims & Objectives

To demonstrate how to build resilience in a pony involved in therapeutic equine work. To promote the improved outcomes that are achieved by acknowledging equines as sentient beings and partners in delivery of therapeutic programs.

Study Population & Sampling

This study aims are presented in a case study developed after 3 years of observation and data collection. The study draws on 25 years of RDA experience by the presenter with regard to resilience in RDA ponies and their level of engagement as sentient beings within program delivery.

Data Collection, Methods & Measures

Data has been collected and recorded via observation, interaction and photographic evidence recorded over 3 years.

Data Analysis Methods

A qualitative assessment of data has been gathered and analysed by the presenter. The data has been assessed on an inferential basis, aiming to test theories about the nature of resilience in ponies involved in therapy related work with humans.

Duration of Study

3 years

Outcome Results

To share identified approaches and practices to build resilience in ponies working in therapeutic programs to empower the ponies and improve the clients experience within these programs



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A model for developing workplace health and safety, best practice risk management in therapeutic horse riding.

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Introduction

Horse related activities are high risk, however most interventions are reactive rather than proactive; risk mitigation being rarely considered. Risk mitigation is about harm minimisation and analysis of underpinning factors rather than responding in an ad-hoc manner. Therapeutic horse riding (THR) programs operate within regulatory and insurance frameworks and providers have legal and ethical duties of care to ensure the health and safety of all involved, including volunteers. A systems approach is required to address complex factors that present with horse/human interaction. A systematic approach considers the horse and rider within cultural and other contexts including the physical, social and regulatory environments.

Study Aim

To address gaps identified in the horse industry safety culture, this study aims to use a systems approach to develop a comprehensive process to address this complex and multifactorial problem. This approach provides a model for the development of Best Practice Guidelines for Workplace Health and Safety for THR risk-management.

Study Design

A mixed methods study including a literature review; a policy review; incident and injury data analysis; a qualitative user survey, and, implementation and evaluation of an evidence-based intervention.

Study Population

The population studied is the RDA volunteer and paid worker cohort, and riders, in various work contexts.

Collection Methods, Measures and Analysis

A literature review and evaluation of relevant policy and procedure in Australia and internationally was undertaken to identify common issues and controls and contributing factors. Current risk mitigation practices were compared against international models, to identify gaps, facilitators and barriers. Injury data (2007-2017) for all RDA Australian Centres was analysed to identify risk and hazard exposures. Volunteer and paid workers were surveyed to examine prevailing safety culture. This data will be used to design an evidence-based model for risk analysis and development of controls, to be trailed in selected THR centres, evaluated and revised.

Conclusion

The use of a systems approach considering all risk-related factors within the work and work environment, (including riders, horses, staff, volunteers, and organisational, physical and psychosocial environments), provides a model which can be used in any horse-related environment, to develop and embed an improved safety culture.



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Challenges Horses Face in Equine-Assisted Activities and Therapies

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The inclusion of horses as part of human health and learning services represent a growing segment of the horse industry. In the U.S. alone, there are 38 higher education institutions offering coursework in these areas (Ekholm Fry, in press), and dozens of organizations teach models of how to facilitate this work. The role of the horse in human health services is thought to represent a shift in human-horse interaction and in our overall relationship with horses, but the same issues that are prevalent in the larger equestrian world related to understanding equine cognition, as well as feeding, social, and locomotory behaviors and needs, remain. Anthropocentric views such as “horses are meant to heal trauma” and “horses volunteer every day to help humans”, create an intriguing situation: in this field, horses are often seen as becoming psychologically fulfilled and receiving mutual benefit from participating in the therapeutic work humans create. However, the requirements for understanding horse behavior and science-based training methods have been low to non-existent in U.S. programs preparing individuals to provide these services. It is sometimes believed, especially in services focused on mental and emotional growth, that the horse should receive no training or preparation for the situations they might face in a session, as this could diminish their immediate psychotherapeutic value. In this presentation I will discuss barriers to knowledge of equine welfare, behavior and training in these fields; and present opportunities for improving welfare for horses working in therapy and learning services



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Evaluation of impact on the horse of 3 adaptive devices used by riders with Cerebral Palsy in therapeutic riding

Mrs. Bonnie Depue¹, Dr. Lana Kaiser³, Dr Camie Heleski², Ms LeeAnn Kaiser⁴

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Evaluation of impact on the horse of 3 'saddle types' used by riders with Cerebral Palsy.

Therapeutic riding (TR) is used for individuals with disabilities such as individuals with Cerebral Palsy (CP). Adaptive devices and 'saddles' are chosen to maximize benefits of TR and safety & independence of participants. We chose dressage saddles, bareback pad, and the Independent Saddle™. Interest in therapeutic role of animals and that interaction with humans also generates concerns for welfare. Weight balance issues can be triggers for horse stress in different saddle types and question their stressful nature on the horse.

This pilot was a comparative effectiveness study on the impact of three 'saddles' used in TR on the therapy horse.

10 TR riders with CP rode once on each saddle on one of 6 therapy horses.

The Pliance Pad was used to evaluate the pressure of equipment on the horse's back and the combined pressure with the rider on the horse's back. Each session used the same pattern of riding with straight lines and turns in both directions at a walk. Analysis used Novel Electronics and Matlab Mathworks.

An equine ethogram for tracking stress behaviors in horses was also used. 55 sessions were observed assessing stress under each 'saddle' during mounting/dismounting, and one minute intervals for 9 minutes of data per session. Power analysis was conducted by MSU College of Agriculture and Natural Resources Statistical Consulting Center.

The one hour sessions had 30 minutes of riding activity. The entire study spanned 12 weeks.

The study found no difference in the average number of stress behaviors between all three devices suggesting at least at this center with these horses, these activities are not perceived to be stressful, nor do the horses perceived one device to be more stressful than another. As areas of high pressure under the equipment may lead to stress behaviors, the direct pressure measurements taken showed the dressage saddle and the Independent Saddle to be similar and the bareback pad showed the highest pressure without the rider. None of these levels were alarming when compared to able-bodied riders on a conventional saddle.



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THE CARE OF THE HORSE AND ITS ENVIROMENT IN EQUINE ASSISTED THERAPY-THE OCCUPATIONAL THERAPY PERSPECTIVE

Ms Ariadni Tsigkanou¹

¹Therapeutic Riding Association Of Greece (trag), Athens, Greece

The care of the horse and its environment includes various functional and meaningful activities, which may be used therapeutically in Equine Assisted Therapy.

These activities integrate and require plenty of sensory-motor, cognitive and psycho-social skills and additionally, they simulate with Activities of Daily Living (ADL). This poster will explain: which activities are included in horse caring and its environment, which skills are developed and how, and, in which cases this kind of therapy is appropriate. The correlation between specific grooming tasks and different kind of skills (in movement, perception, judgment, interaction, socialization, self-care, etc.), will be presented, as well as the generalization of them. The involvement in these activities and the development of the above skills can lead individuals to a process in reaching autonomy and realizing the meaning of self-care in life.

Finally, training in horse caring and stable management, would be used as a long-term - vocational training program.

The information contained in this poster is based on bibliographical references.



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Welfare measured via the display of conflict behaviours by equids wearing bitted and bitless bridles in halt trials.

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Background and statement of problem

Popularity of the bitless bridle has risen in recent years, including in Equine Assisted Therapy (EAT). Previous research has considered naïve unbroken subjects (Quick and Warren-Smith 2009), bitless use in EAT (Carey et al. 2016) and comparison of bridles in dressage tests (Cook and Mills 2009; Scofield and Randle, 2013). Conflict behaviours (CB) reported in Scofield and Randle (2013) significantly increased with bitless bridles, however Carey et al. (2016) reported a significant increase with bitted bridles.

Study aim and objectives

The study aimed to compare CB displayed in leisure horses ridden in bitted and bitless bridles.

Quantitative study

Leisure horses (n=8) were ridden by one rider in 24 halt trials each, consisting of three circuits of an arena in a Dr Cook® bitless bridle and also their own bitted bridle in walk and trot on left and right reins then halting in a set distance. Bridle order was chosen using a random crossover selection as were other measures.

Study population and sampling

A population of 8 leisure horses were chosen with similar experiences and temperament.

Data collection methods and measures

An ethogram of CB were recorded continuously in real time and tallies compared using video observation. Behaviours recorded were Head Toss (HT), Mouth Open (MO), Pull Down (PD) and Raise Head (RH).

Data analysis methods

Data were processed through MiniTab 17.3 using a series of Mann Whitney tests.

Duration of study

The study was run over one day experiencing clement weather.



Outcome/Results

There was no significant difference in behavioural intensity between the bitted and bitless bridles ($W=38$, $n_1=n_2=2$, $p=0.0607$). However, there were significant differences in two separate CB, namely RH where horses wearing the Dr Cook bridle exhibited a significantly greater number of this CB ($W=32.5$, $n_1=n_2=10$, $p=0.0125$), and in OM where horses wearing the bitted bridle exhibited a significantly greater number of this CB ($W=77$, $n_1=n_2=8$, $p=0.0022$). Results indicate CB are displayed in both types of bridle, though with different manifestations. Further research is needed to discover if bitless bridles used in EAT as an apparent improvement to equine welfare is a valid option.



Theme 15 - Other



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Stimulus changing in three-dimensional movement due to horse gait amplitude variations and its effects on hippotherapy practitioners

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This research reports the stimulation provided by hippotherapy from the quantitative conceptions of human gait and its resemblance to horseback riding. The aim of this study is to compare the three-dimensional movement executed by the human being when walking with the stimulus received by the hippotherapy practitioner. The data was gathered through dynamical systems formalism and evaluated via Lyapunov exponent. It was used a smartphone with accelerometer and proper software as measuring tool to record six variables concerning the three-dimensional movement acceleration (x, y, z, R, ϕ, θ). The smartphone was coupled in the chest region of the volunteers, allowing to record the acceleration on which they were subjected to. Initially the volunteers walked in three different speeds (slow, medium and fast), with three repetitions of each. Afterwards, with the volunteers sat on the horse, the horse was cadenced at three equivalent velocities (A, B and C). More data was obtained by placing only the smartphone above the animal. The volunteers were divided into three age groups (children, teenagers and adults). For each age group one model and two handicapped persons participated. At the end, the values obtained from the volunteers on horseback were higher than those measured only with the smartphone above the horse, but smaller than on foot, indicating that the treatment stimulates smoother compared to human gait. With regard the horse velocity, "A" was characterized by providing recurrent and rapid stimuli to the practitioners while "C" provides a less frequent and more lasting stimuli.



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THE THERAPEUTIC POTENTIAL OF A HORSE WHEN WORKING WITH GROUPS OF YOUNG PEOPLE

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“Pierce’s Model of Therapeutically Powerful Occupation” is one frame of reference to design and structure occupational therapy (Pierce 2003). The Model describes which factors make a therapy unique, motivational and appealing for a client. Occupational therapist designs a therapy through activity analysis. Therapists have to choose activities according to a client’s interests. Pierce’s Model points out that the appeal of therapy will form when the client feels that therapy brings pleasure, restoration and productivity. In this study, I try to solve if the model would be a good conceptual framework for riding therapy and if so, what makes the horse a therapeutically potential factor in a therapy session.

My presentation aims to provide information about the therapeutic potential of a horse according to Pierce’s Model when working with groups of young people.

This qualitative study was done in one session where young people for the first time as a group were observing and being with horses in the paddock and after that, they discussed their experiences. The discussion between ten boys and girls, aged 16-17, were recorded and transcribed. I analyzed the transcription using content analysis thematizing based on Pierce’s Model of Therapeutically Powerful Occupation.

On the basis of this analysis, it can be concluded, that the therapeutic power of being with horses is to encourage the expression of feelings, to bring pleasure, restore, motivate, to create a peaceful atmosphere, to motivate, and to encourage bonding in the group and commitment to therapy.

As a conclusion Pierce’s Model is a very suitable conceptual framework for riding therapy.



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Affective or attachment bond? A perspective on human-animal relationship.

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Humans have an innate tendency for social interactions focused on specific figures and the quality of this interaction is expressed through characteristic behavior patterns. The aim of this study is to observe whether there is a difference in the human mental representations of intraspecific relationship with humans and interspecific relationships with animals, in particular the dog and the horse. The choice of these animals is based on two considerations: first a long history of domestication; and second the dog is a predator and the horse is a prey. In order to evaluate the relationship we used a questionnaire divided in two parts: a socio-medical record for subjects and their animals. The second part on the attachment was based on a review of RAQ (West 1994) and IOS (Gächter, 2015) was. The attachment scale and IOS have been specifically adapted for animals. The sample of 603 subjects aged 18 to 71 years ($x = 33.83$, $ds = 13.31$) comes from: Northern Italy (75.56%), Centre (17.04%), South (7.07%) and 0.34% from abroad. Preliminary analysis of 309 subjects showed a correlation between both human and animal attachment. Specifically 12% of subjects reported an intra and interspecific "safe" pattern of attachment, 12.35% had a secure pattern with human and while the pattern with dog was "preoccupied", while 20.59% of subject expressed preoccupied pattern with conspecific and secure pattern with dog. As regard horse there was an inter-and intraspecific correspondence of 12.65% of cases with respect of safe patterns and a correspondence of 46.39% with preoccupied patterns. Instead, in 15.06% of cases subjects with secure pattern with horse reported preoccupied pattern with humans. Finally in 12.65% of cases subjects reported safe pattern with humans and preoccupied pattern with horse. In order to observe the relationship between human attachment and animal attachment has been established a correlation that highlight that human pattern of attachment correlates positively with the pattern of attachment to the dog (Pearson's $r = 368$, $sig = .000$) and to the horse (Pearson's $r = 428$, $sig = .000$)



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Pilot study exploring the use of matrices to improve communication between therapists, users and involved organisations.

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Background and statement of the problem

Equine Assisted Therapy (EAT) is not considered a mainstream provision in the UK and is not widely understood. This produces problems when seeking funding or fundraising for those unable to financially contribute.

Indeed Outdoor Therapy as a whole is not widely established as a valid treatment option for adults, young people or children with emotional, behavioural, physical or mental problems in the UK.

In order to mainstream both Outdoor Therapy and EAT people need to understand the provision and be shown that the effectiveness is based in science not magic.

Pilot Aim and Objectives

The aim was to pilot a matrix that had been developed to assist in the explanation of the possible applications of EAT to beneficiaries, schools, parents and interested parties as well as assisting in the setting of individualised programmes.

If the tool proved successful it would be further refined and brought into regular use.

Study Design

The pilot was designed to test the increase in understanding of EAT brought about through use of the matrix.

Study population and sampling

The sample was set at 50 people to be taken from the staff and volunteers working at the centre, beneficiaries, their families, school staff and health professionals

Data collection methods and analysis

An analogue scale of self-assessed knowledge was used before and after explanation of the provision using the matrix. Set wording was used to remove operator bias as much as possible.

A second analogue scale assessing acceptance versus scepticism was also used.

The changes in understanding and acceptance were noted an increase of 3 points on the scale of 10 was taken as a significant positive change.



Duration

The pilot was run over 3 months to ensure the questions could be asked of those new to the Centre.

Outcome and results

Over 75% of staff, beneficiaries, their families, education and health professionals found the matrix useful in understanding how equine assisted therapy could work and its applications.



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Hurdles and Challenges to Equine Assisted Activities and Therapies (EAAT)

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EAAT has matured and is no longer the newest intervention available for people with disabilities. Maturity also brings Hurdles and Challenges that threaten the sustainability of EAAT programs. Questions concerning Challenges, barriers and more recently Disruptors have been raised through the years (1998 St. Andrews and PATH Questionnaire; 2012 “Education of Therapeutic Riding Instructors in the US: Past, Present, Future (Renker, Stalsburg, and Turbeville); 2017 “Assessing Therapeutic Riding Center Sustainability Factors” (Sara De Pape).

A Summit was hosted in 2012 by AQHA (American Quarter Horse Association), Colorado State University and PATH “to identify barriers and challenges and in 2017, PATH provided a panel to discuss Disruptors to EAAT.

These inquiries indicated many similar Hurdles and Challenges and provide baseline information to pursue further investigation at a global level. Are there similar Hurdles for EAAT centers throughout the world? In 2015, “Barriers to Quality Therapeutic Riding” (Renker) was presented at Kijeon College and pointed out similar and dissimilar barriers to those found in the USA.

This investigation would look at trends, similarities and differences between Countries EAAT programs.

Study aim and objectives:

To investigate the current Hurdles and Challenges to the EAAT industry in the US and internationally. The objective is to seek input from the International TR community in addition to USA to analyze common trends globally. Focus is on five areas: Hurdles and challenges for

1. Executive Directors
2. Program Directors
3. Instructors
4. Industry as a whole
5. How Agencies and Organizations can assist programs.

Study population and sampling:

Programs and Key leaders in EAAT internationally.

Data collection methods and measures

Use of survey monkey to collect and measure data.

Input from key leaders to assist with focus



Data analysis methods: Survey monkey tools for analysis

Duration of the Study
August 2017-March 2018

Outcome/ Results

Specific Hurdles and Challenges that have been identified in previous surveys in the USA provide the base for this study. The continued investigation through 2018 provides insight into Barriers that can positively and negatively affect EAAT currently and in the future. The intended outcome is to help guide decisions in the EAAT field



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The effect of continuous horse therapy on dynamic standing balance in the elderly.

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Background and statement of problem

The fracture by falling is one of the serious problem of a nursing care in the elderly. The dynamic standing balance training is important in order to prevent falling.

We previously reported at the 15th HETI international congress that the results of cross test (CT) as a dynamic balance indicated that horseback riding contributed to the improvement of the lateral body sway.

Study aim and objectives

We studied the effect of continuous horseback riding to the dynamic standing balance ability of the elderly.

Study design

Pre/post test comparison

Study population and sampling

The subjects were able to do ADL (activities of daily living) independently. The subjects participated in a once monthly, eight months riding program. We studied eighteen subjects (six males and twelve females) who had an average age of 84.6 ± 6.9 years.

Date collection methods and measures

We evaluated CT before and after riding, at the beginning of this program and at the end of it.

CT was measured during standing position about the four-maximal displacements (forward, backward, leftward and rightward) by use of a force plate (Kyowa Electronic Instruments: ECG-1500A, sampling rate 100Hz).

Data analysis methods

Final test data before and after riding was compared with first test data by the paired t-test of statistical analysis.

Duration of study

April to November on 2016.



Outcome / Results

The maximal displacement of forward and lateral side after riding was significantly greater than before riding. Both data increased at the final test rather than the first one. ($P < 0.05$)

The results suggested that continuous horseback riding may be able to contribute the facilitation of muscle activation of trunk and lower extremity and also to stabilize dynamic standing balance.

We will keep providing horse therapy for the elderly in order to improve their physical ability and to maintain their health, as well as continue to study its effects on preventing falling.



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Providing the evidence: A critique of research designs and statistical tests for Therapeutic Riding

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Background and statement of problem: Many countries and their health care systems need to economise and increasingly look to allocate funds based on scientific evidence. The evidence base for therapeutic riding (ThR) interventions is growing. Yet, many countries' health care systems do not recognise ThR as a (cost-)effective intervention and refuse to fund it.

It can be argued that one of the reasons for this mismatch is that researchers across equine assisted and/or facilitated therapy disciplines continue to strive to meet the challenges of the still dominant Randomised Controlled Trial (RCT) model of research, and neglect other research designs that are much better suited to demonstrate changes in small samples.

Based on extensive evidence, this paper will remind the audience of the origins of the RCT in pharmaceutical research and outline why it is an unsuitable research design for providing evidence for the effectiveness of interventions for people whose presentations are naturally diverse, and samples, therefore, non-homogenous and small. This clearly affects not only equine-based interventions, but many therapeutic interventions other than drugs, and there have been explicit calls for alternative approaches in neurology (e.g. Behrmann, Bowden, & Dorian, 2013; Button et al., 2013; Rothi & Barrett, 2017; Tinetti & Studenski, 2011; Whyte et al., 2009) and low back pain (e.g. Hodges, McGill, & Hides, 2013).

As far as statistical analyses are concerned, peer reviewers and researchers increasingly reject statistical significance testing, or in the least demand statement of effect size in manuscripts submitted to international scientific journals (Brandstätter, 1999; Cohen, 1969; Cohen, 1994; Knol, Groenwold, & Grobbee, 2012; Masicampo & Lalande, 2012; Nakagawa, 2004; Hopkins, Marshall, Batterham, & Hanin 2009; Wilkinson, 2014). In line with these demands, alternatives will be suggested for both research designs and statistical analyses, with case series design emerging as a strong study design and effect size and magnitude-based inference as methods of statistical analysis able to provide much clearer and clinically relevant information of effects and effectiveness than traditionally used methods.

Study design: other – this is a critique of research methods in ThR



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The Mechanism of Action of an Equine Assisted Intervention: A Pilot Study

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The Mechanism of Action of an Equine Assisted Intervention: A Pilot Study

Background and statement of problem

There is now an accumulation of evidence of the vital contribution that emotion makes to learning. Within this broad advance in understanding is a growing body of research emphasising the embodied nature of this emotion based learning.

Study Aim and Objectives

The present study is part of early translational research aiming to explore the potential positive impact of applying the concept of embodied emotional learning to understanding therapeutic equine activities. This paper reports on a study of the mechanism of action of an equine assisted therapy based on natural horsemanship.

Study Design

It was hypothesised that the established success of this intervention was due to emotion based learning, measurable by somatic psychophysiological changes.

Study population

Seven healthy participants undertook the equine intervention.

Data Collection Methods and Measures

The first four participants had emotion-related psychophysiological changes (heart rate, breathing, heart rate variability, facial EMG, skin conductance) measured while viewing their experience on video in the lab, and the final three experienced a development of the methodology as their responses were captured in real time while participating in the intervention. All participants were also interviewed while watching themselves completing the intervention on video to explore their emotional experience.

The sessions were analysed by five independent researchers who matched together the psychophysiological responses with what was happening in the video of the individual engaged in undertaking the intervention. This was done in order to identify any emerging patterns of change in the psychophysiological responses in relation to the exact timing of what was happening on the video. Horsemanship experts also helped determine when significant learning may have been occurring.

Duration of study

Two stages, over two years.



Outcome/Results

The results supported the hypothesis that the primary learning process in the intervention may be an embodied emotional response as consistent patterns of measurable change in skin conductivity responses were found at particular points in the intervention.



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The Equitots Model using Mobile Technology to Bring Balance to an Equine Assisted Program

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Equitots started as an organisation in 2010 in the Western Cape of the "Rainbow Nation" South Africa.

Since then we have provided over 50 thousand Equine Assisted Interventions for children from different cultural backgrounds with and without disabilities.

Sessions were provided at various facilities by qualified facilitators using case relevant models.

To address:

- therapy horse burnout
- facilitator burnout
- facility overuse
- structure and support

we developed a mobile app that collects and manages:

- Client Data
- Horse Data
- Session Data
- Facilitator Data
- Location Data
- Research Data

The app generates a comprehensive daily report for each stake holder. The same reporting tool also provides a safe platform for networking, mentoring and project management.

We would like to share our findings of using mobile technology to enhance wellness and efficiency of an Equine Assisted Program to others in our industry.



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The Circular Classroom, Interactive Vaulting for Public School Groups in Charleston, South Carolina

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The Circular Classroom details the benefits of a twelve-week Interactive Vaulting session for special education students from a local public school. The Interactive Vaulting format follows the guidelines set by the Professional Association of Therapeutic Horsemanship International (PATH Intl.).

At the beginning of the twelve-weeks, two PATH Intl. Interactive Vaulting instructors evaluated each student and collaborated with the special education teacher to devise goals that align with each student's Individualized Education Plan (IEP). Instructors developed warm-up, barrel, circle and mounted group activities and games that were aimed at helping students achieve established goals. Goals included increasing positive social interactions and communication skills, improving academic outcomes, enhancing coordination and balance, following directions, increasing body awareness, decreasing behavioral outbursts, and developing more positive self-esteem.

Over the twelve-week period each student made progress towards their cognitive, physical and social goals. The presentation will detail how the Interactive Vaulting activities promoted student success. Examples include following directions to learn the motor planning sequences necessary to mount and dismount, working as a team to care for the horse, and playing social games with other students and volunteers. The presentation will also touch on the many physical benefits associated with learning and executing different body positions on a static barrel and the moving horse. The presenters will conclude by summarizing how the experiences made during a twelve-week Interactive Vaulting session result in a more confident, capable and organized special education student.



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How is the Danish Education for Riding Physiotherapists practiced? What kind of considerations underlie the education of the Physiotherapists?

Physiotherapist, Riding Physiotherapist Birgitte Goetske¹

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The Riding Physiotherapist (RP) education should enable the RP to use her/his clinical eye, her/his knowledge of the horse and its movements to generate a treatment where the patients will be able to transmit the effects of RP to their functions in their daily life.

Due to the physiotherapist's profound knowledge of neurology, ortopedy and paediatry and her/his knowledge of the horse the RP will be able to achieve the most efficient and safe riding physiotherapy with minimal unintended incidents in cooperation with the Riding for the Disabled Instructor.

This contribution will give the audience a short briefing of the different themes of the riding physiotherapy course. What is best practise? What are the goals for the patient? How are the goals obtained?

How do the RP facilitate to a physical and psychological development and how do the RP stimulate to a possitive, emotional and well being situation for children, young people and adults?



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Vaulting: Riding for the Disabled Coach and Chartered Physiotherapist working together enables participation and achievement for children with complex needs

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Special Project Submission

Vaulting at the Perry Riding for the Disabled Group runs for an hour weekly on Saturday afternoons. Vaulting can be described as gymnastics on horseback, but what we do is so much more than that. The sessions are jointly run by Sam Davison a RDA vaulting coach and Lynne Munro a Chartered Physiotherapist and RDA vaulting coach along with a horse lungeur and a team of volunteers. The blending of the specific skills and expertise of the session leaders enables children with complex physical and intellectual needs to participate and achieve in different areas.

This presentation will outline the format and structure of a typical vaulting session: unmounted warm up games and activities, work on the barrel horse and mounted work on the vaulting horse. It will be highlighted how children with complex physical needs can participate in a vaulting session with appropriate support. Explanation will be given as to the rationale and purpose of the different activities. Parental and vaulters views will be presented in an appropriate way,

The session leaders are constructing an assessment and outcome measures tool to demonstrate the impact of vaulting on different areas for children with complex needs including working together, skill development and health and well being. This will be piloted in January 2018 and will run for 12 weeks. The results and inferences will be presented at the conference in June 2018.



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Horse Assisted Intervention in Elderly Age

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Horse Assisted Intervention in Elderly Age

Psychological wellness of elder people, which stay in a care home, can be compromised by many reasons, horse assisted interventions can be a valid instrument: the approach with the animal is such a captivating activity decreasing the feeling of loneliness; the emphatic relation established with horses also help the patient rediscover “the pleasure of taking care”.

The activity is led by the therapist specialized in equine rehabilitation; the guests are identified by medical staff those who have to make sure the patients don't suffer from aggressive behavior or in case of specific allergies, gaping wounds, or the presence of gateway to infections such venous craters, tracheotomies, PEG. In the project, 8 nursing homes of the Social Cooperative “Il Faro” have been involved , for a total of 50 guests between 65 and 98 years old.

The activity was carried out for a total of 10 sessions of two hours each; the setting was structured dividing the field in two halves destined to the approaching of the animal thanks to the donkey, the preparation of food for horses, the cleaning of the horses and in a second moment the possibility of riding a horse.

Two days after the meeting with the horses, a semi structured interview was submitted to the patients and to the medical staff in order to allow the emotional and cognitive processing of the experience and to evaluate the benefit of the activity.

The results will be analyzed comparing the answers to semi-structured interviews.

Keywords: animal assisted interventions, equine rehabilitation, occupational therapy.

References:

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Nordic Aspects on Equine Facilitated Physiotherapy – from biomechanics to bodily and social interaction.

Ms Margareta Håkanson¹, PhD student Sanna Mattila Rautiainen², PhD, ass prof Tobba Therkildsen Sudmann³, Ms Pia Tillberg⁴

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In the Nordic countries, horses are used in physiotherapy as the only treatment approach, as a part of physiotherapy, or as part of a larger cross-disciplinary treatment programs. So far, research on equine facilitated physiotherapy in Nordic countries has profited on the development of body awareness theories and movement therapies, on the growing body of knowledge on the health promoting effect of contact with nature and animals and research on farm based activities and interventions. Currently, equine facilitated physiotherapy may be offered to patients with a wide range of physical, cognitive, mental, psychosocial and learning problems.

Current research on equine facilitated physiotherapy is manifold. E.g. directed at the biomechanics of the horse and the rider, or towards the movement dialogue between horse and rider, the human-equine relationships, or studies of how horses facilitate learning. Equine facilitated physiotherapy offers rider-patients a wide range of opportunities to discover or re-discover their strengths and possibilities, to learn or enhance body awareness and physical function, and to facilitate physical capacity and cognitive functioning. In this symposium, four different perspectives on equine facilitated physiotherapy will be presented. Theoretical perspectives will include movement science, biomechanics, human-animal relations, outdoor physiotherapy, experiential learning and adapted physical activity.

The four separate presentations are:

1 The importance of rhythm for spinal movement coordination between horse and rider.

Sanna Mattila Rautiainen, PhD student, University of Eastern Finland

2 Healing human-equine relations – devised encounters with daring and compassion

Tobba Therkildsen Sudmann, PhD, ass. prof., Western Norway University of Applied Sciences, Norway

3 To rebuild the body when traditional physical training has failed

Margareta Håkanson, med lic, Univ of Agricultural Sciences, Sweden

4 Learning by doing – a classroom in the stable

Pia Tillberg, Ersta Sköndal Bräcke University, Sweden



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Advantages of using a mechanical rein handling machine to increase co-ordination by repetitive muscle use

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The client I used for my case study, Mark, aside from Epilepsy, has a rare condition known as Mobius Syndrome. His condition is severe which also renders him unable to communicate. It was noted that over several years of riding, he had good balance, but was unable to steer or take up contact on the reins. I introduced Mark to carriage driving to give him a different activity, and to be able to observe his rein handling more closely. After a few sessions, I considered the repetition of a rein handling machine, to improve his co-ordination and supplement his riding and driving activities. I believe this is the first time this apparatus has been used for a driver with disabilities. It has been 12 months since Mark began using the rein machine, his driving skill has improved significantly to the point of being able to drive with contact on the horses mouth, steer through a simple slalom course and also being able to stop the horse. Interesting to note that although he has rein contact whilst driving, it has not transferred to riding as he still continues to ride with loose reins. This may be attributed to either a different coach or more likely he does not associate the rein machine, which he sits behind and thus is the same as driving, to riding where he sits on top. I am considering making a rein machine for clients to sit on, to see if makes a difference.



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Non-verbal interaction as key in Equine Assisted Interventions

- Interaction between client, horse and therapist and the possibility's for EAI

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EAI is based on the communication between client, horse and therapist. The interaction take place on verbal and non-verbal level with each other. Because of the horse's special abilities to perceive and interpret the non-verbal communication the horse gives essential assistance to the therapist. Small gestures or movements determine the interaction between client and horse. The specific training of the horses and the knowledge of the therapist how this horse gives feedback enables him to read the interpretation of the horse of the clients' feelings. Based on the analysis of 30 client session videos, which were recorded by Verein e.motion, research was focused on bilateral influence of body language between horse and client during a free-interaction-session under therapist guidance. The videodata was analysed utilizing a customized ethogram (based on horse behaviour and non-verbal human communication) in Observer XT11. Sequence and behavioural-analysis from Observer XT11 and SPSS 21 were used to assess relations between different behavioural patterns of client and horse, client and therapist and horse and therapist. The analysis shows a statistically significant relationship between client movement and horse movement, a relation between client movement and horse's ear-position, a relation between client's posture and horse's head/neck-position and movement ($p < 0,05$). Finally, gestures seem to play an important role while interacting with the horse. The data also shows that the horse acts on signals from the therapist (primarily movement & gestures), which suggests that the horse's attention is, in part, focused on the therapist. Client/therapist interaction is predominantly verbal. The client responds to verbal interaction by changing direction of view or following therapists instructions. Although these relations are significant the low frequency implies limited reliability. Summarize, the interaction in e.motion's "free interaction sessions" is predominantly between client and horse. The horse mirrors the client's behaviour which allows determination of the client's state of mind. Looking at these results on a qualitative way shows up, that this method gives many opportunities in EAI with different kinds of disability's and confirms the therapeutic effect of it scientifically. Also the aspect of equine welfare by using this method can be discussed based on these results.



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Dravet Syndrome(DS) and Psycho-educational intervention with horses: A two-case study.

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Introduction: Psycho-educational intervention with the assistance of horses consists of educational tasks that decrease anxieties and increase motivation, socialization, self-esteem and self-awareness. Furthermore, both cognitive (concentration, attention and learning) and motor function (fine and gross motor skills) are improved.

Purpose: Efficacy assessment of Psycho-educational approach in relation to motor function, attention and concentration. Moreover, initiatives regarding development of independence and self care were assessed.

Method: A six-week psycho-educational therapeutic program was organized and included one session per week for each child. The duration of each session was 35'-45'. The evaluation was conducted via observation in both cases. The areas evaluated were behavior, motor function, perception, speech and language and cognitive functions. Every session was reported and thoroughly analyzed for both children. The children who participated were both male aged 8 and 10 years old.

Results: It was observed that both children improved not only their concentration and attention but also their fine and gross motor skills. In addition, initiatives were taken during the session from both children.

Conclusion: Psycho-educational approach with the participation of the horse is an appropriate intervention to children with Dravet Syndrome (DS).

Key-words: Therapeutic riding, Psycho-educational intervention, Dravet Syndrome.



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Public perceptions of equine-assisted activities and therapies.

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Background and statement of problem

Studies concerning attitudes towards equine-assisted activities and therapies (EAA/T), have been well documented (Selby and Smith-Osbourne, 2013; Fine, 2015). However, these are limited to perceptions of people who were directly involved as a therapist or participant (Velde et al., 2005; Berget et al., 2008; Black et al., 2011; Lemke et al., 2014). They also only focused on the perceived effectiveness and benefits to the human participant none look at the perceived impacts of EAA/T on the horses used.

Study aim and objectives

To determine whether experience of the equine industry influences perceptions of the use of horses within EAA/T.

Study design

18. Mixed methods study, Quantitative and Qualitative.

Study population and sampling

n=383

Links to the questionnaire along with an outline of the study were shared on social media primarily Facebook (Facebook, Inc.; Menlo Park, California, US), equine, animal assisted therapies and EAA/T groups and several university pages.

Data collection methods and measures

Data were collected through a questionnaire, created using Smart Survey, Pro software (Smart Survey™; Tewkesbury, Gloucestershire, UK).

The questionnaire consisted of 15 questions:

1 to 4 – demographics.

5 to 7 – determine experience of the equine industry.

8 to 15 – perception based questions.

Data analysis methods

Several link functions were tested and that with a best fit was chosen. The goodness of fit was evaluated through the Deviance and Akaike's Information Criterion and tested for significance via Likelihood ratio Chi-square test. The variables in the models were tested for significance using the Wald Chi-square test. The routines were performed using forward stepwise procedure. Differences in the two perception variables



that produced significant were tested with the Fisher's exact test in a table of contingency, once the criteria for a Pearson's Chi-square test were not met.

Duration of study

Responses to the questionnaire were collected between 17/03/2017 and 17/04/2017.

Outcome/Results

Only two perception questions produced significant models, between 'experience groups' and 'genders'. "Do you object to animals being used as part of animal-assisted activities and therapies?" and "Do you object to horses being used as part of equine-assisted activities and therapies?".



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Hippotherapy as an intervention model for ritualistic behavioral change in a child with special needs

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The Hippotherapy is a treatment of reeducation and motor and mental rehabilitation through the practice of equestrian activities and horseback riding techniques. The Hippotherapy is not limited to the practitioner riding the equine, but also the relationship which is established with the horse. This paper is a case study whose overall goal was to analyze the behaviors have been learned in the triple mediation (practitioner-equine-therapist) and generalized to other contexts. The study was composed of a psychology undergraduate from Pontifícia Universidade Católica of Paraná, a practitioner diagnosed with a possible case of Tourette Syndrome in the reeducation program and two physical educators. The study has been divided in four stages (ethical aspects, intervention, post test and data analysis) and used the Conners Scale, an answer sheet from the event log (of the accumulated frequency in the motor and vocal behavioral classes) and a video camera as instrument. The results in the educational context before and after the intervention showed that there has been an increase of the stereotypical behaviors (vocal tic, head tic, upper limbs tic, lower limbs tic) during the observation, but with a higher frequency before than after the intervention. In the family context, the Conners Scale has been used, where 45 points have been scored in the pre-test, which means that the habitual behaviors that occurred at home are proportional do 35,7% of the total amount of the test and in the post-test the score reached 30 points, which amounts to 23,8%. The changes which occurred in the intervention during the Hippotherapy have been the decrease of the vocal tic, upper limbs tic and lower limbs tic, differing from the increase in the head tic.

Keywords: Hippotherapy, Intervention, Tourette Syndrome



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Combining Massage Therapy with Hippotherapy

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During hippotherapy, the movement of the horse facilitates neurological coordination and cognitive improvement in the client on the horse. Massage therapy has also been used to facilitate muscle tone and elasticity as well as psychological relaxation and improvement in mood for the client. In this presentation, we will discuss how CARAE -Santa Cruz integrates these two specialty therapies. Specifically, we will describe which disorders, both physical and psychological, may improve as a result of the receiving both massage and hippotherapy; different session activities with the therapist both on or off the horse, and how the integration of massage with hippotherapy has been very beneficial for specific clients.



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Investigating if a modified assessment tool can demonstrate impact of hippotherapy in children with complex disabilities (neuromotor; sensory; communication; cognitive/behavioural).

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⁴MCSP, , United Kingdom

Previous research indicates that current standardised assessments are insufficiently sensitive to record small changes and do not reflect the impact made in the everyday life of the child. It suggests the effect of hippotherapy on children with different disabilities needs to be examined and qualitative methods provide the most appropriate means of evaluation for health programs. Difficulties cited are poor scientific rigour, small sample size, non-standardised measures, lack of 'control group'.

Aims:

To explore if hippotherapy has significant impact on children with complex disabilities, using a pragmatic holistic recording approach, considering children of different ages, sex and co-morbidities.

To consider if an adapted 'snapshot of functional ability assessment tool' is sensitive to small changes and can produce a 'measurable outcome' of hippotherapy impact in children with complex disabilities⁷

To provide a pilot for a wider participative study, testing 'transferability, dependability, trustworthiness.'

Children were assessed by a single therapist, pre and post terms of 6 x weekly 30 minute hippotherapy sessions, using a range of suitable horses. The Nottingham "0-5 Snapshot Scale" was adapted to define quality of functional ability in gross motor (A); upper limb (A2); and "soft" (B) skills

Participants comprised 27 children, aged 19 months to 18 years (none contra-indicated), referred for hippotherapy by consenting parent/guardian. Two were discounted from pilot study by failing inclusion criteria of physical disability.

Baseline assessment, (BA) (A+A2+B/3) and final review (FR) established pre and post hippotherapy Child Total Score (CTS) = Outcome Measure by which impact was 'weighed'. Assessment was repeated for those presenting for further hippotherapy input after a 4 month winter break (natural 'control period') providing further comparative CTS, demonstrating 'regression' data.

A Shapiro-Wilks test confirmed data was not normally distributed. Differences in CTS ranged from 0.33 to 2.73 (Median=1.07). Using a paired-samples Wilcoxon signed rank test, this indicates a statistically significant (V=325, p<0.01) improvement in CTS after one term (or more) of Hippotherapy.

Data was collected over a four year period.



Results suggest the adapted “snapshot quality of functional abilities” assessment tool can measure holistic impact of hippotherapy in children with complex disabilities, with statistically significant improvements in CTS.



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Development and validation of haptic interface for deaf-blind riders

Mr Doug Smith¹

¹*Riding For The Disabled Association, Warwick, United Kingdom*

Background and statement of problem:

RDA caters for all disabilities including those who are both visually and aurally impaired. However very few have total loss of both senses (less than 5% of the 23,000 who are registered in the UK).

Communication with these riders presents great problems. This study investigated the issues surrounding communication and produced a simple and workable solution with sound research behind it.

Study aim and objectives:

To investigate the feasibility of producing a device which would allow totally Deaf/Blind riders to ride independently whilst giving the coach a means of communication.

Study design:

In the conventional way of deaf-blind riding the rider either passively rides the horse as it is being guided by the instructor, or controls the reins while the instructor communicates spatial cues by touch. A simple set of vibrotactile instructions generated by bluetooth controlled tactile actuators was developed.

Study population and sampling:

The potential study population is limited due to the small number of people who fall into this category – in this case we only had access to one such rider.

Data collection and measures:

The tactile guidance system was used in a riding session where the performance of the rider was evaluated. The subject wore the tactile interface which was remotely controlled via a smart phone by his riding coach. Three Inertial Measurement Units (IMUs) were attached to the subject, two to his upper arms on top of the vibration actuators to detect the occurrence of vibrations and one to the subject's torso to track his motion and thus synchronize the stimulation and motion capture data.

Data analysis methods:



The information gathered from the IMUs and questionnaires completed by those involved was combined to give an overview of the quantitative and qualitative data in relation to the efficacy of the communication device and the effect it had on the rider.

Duration of study:

The study is ongoing, the initial period was 12 months

Outcome/Results:

Further work is being carried out to develop the device and potential applications.



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Equine Assisted Activities and Therapy: Towards a Future Curriculum

Dr Anita Shkedi¹

¹Israel National Therapeutic Riding Association, Bnei Zion, Israel, ²Derby University, Derby, United Kingdom

Equine Assisted Activities and Therapy (EAA/T) is a non-invasive treatment modality recommended by the medical and educational community for a subset of challenged children and adults. As its popularity increases, so too are the concerns among stakeholders and the medical and educational professions about its legitimacy as a treatment modality. The main concern being that EAA/T practitioners have not acquired the professional skills required and that the EAA/T treatment programmes are not evidence-based. The central question of this research focused on identifying Equine Assisted Activities and or Therapy (EAA/T) and creating an optimal learning curricula and more practical experience for future practitioners.

In order to explore these issues an extensive multi-method research study was conducted to identify gaps in EAA/T curricula, which included a review of empirical data and different curriculum models. The Delphi Method (DM), a robust, qualitative, naturalistic, systematic and interactive research method was used to support the research. Part of the DM required an analysis of data, adaptation of issues and amendments to questions culminating in a collective consensus among EAA/T experts.

The key research findings suggested that current training programmes use curricula with significant gaps resulting in poor professional knowledge formation, a lack of experiential learning, insufficient knowledge of equestrianism and an inability to use pedagogic paradigms. Other findings showed that curricula being used were not being built as an application of sound theoretical principles but rather, transmitted in a manner that does not motivate active and meaningful learning or promote the best practical experience. As a consequence, national organisations and academies dedicated to EAA/T training sidestep high standards and core values for the sake of membership and financial gain.

This rigorous research study has highlighted gaps in current training practices and has made it possible to make recommendations for a future curriculum. Recommendations that suggest the future curriculum is built on sound theoretical principles developing foundation knowledge to operate EAA/T in all fields of practice. This could set new quality and performance benchmarks and provides EAA/T practitioners with adequate tools to connect best practices to people with real-life challenges.



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Riding for the Disabled working with commercial riding schools to gain their Accessibility Mark accreditation

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The Presentation will share the research and insight that RDA have used to develop an appropriate way to create links with new schools and ensure that disabled people get a safe and high quality experience.

The Riding for the Disabled Association is working with commercial centres to offer training, guidance and support. The presentation shall look at the challenges that centres face as well as the potential barriers that may hold disabled people back from pursuing riding activities.

I shall also look at the relationship between commercial riding centres and RDA groups and explore why centres might choose to work towards their Accessibility Mark accreditation.



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Psycho-Educational Approach applied in Equine Assisted Therapy,
**How & why Psycho-Education enhances the therapeutic impact in
individuals working with horses**

Ms Maria Liapi¹

¹Therapeutic Riding Association Of Greece (trag), Athens, Greece

The presentation aims in analyzing the main principles of the Psycho-Educational Approach in accordance with the horse's natural qualities that serve as a therapeutic tool.

The horse's characteristics, behavior and environment have various important features that help individuals develop their essential developmental skills and/or life challenges. Those features match perfectly to the guidelines of the Psycho-Educational Approach in working with people, for all purposes (Educational/learning, Skills training, Team building/group training, Personal Development, Group therapy/Support groups, Life-transition groups). Moreover, the Psycho-Educational Approach provides us the structure to organize a session that is close to humans' and horses' nature, with respect to their needs and possibilities. Horses and their environment enrich the settings and activities that a Psycho-Educational session can involve, in helping many different kinds of people's needs.

The correlation of Psycho-Educational Approach and Equine Assisted Therapy/Activity can lead us to an effective treatment method.



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The Soft Bigotry Of Low Expectations

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¹RDA, MELBOURNE, Australia, ²RDA SEYMOUR CENTRE, SEYMOUR, Australia

This abstract sets out to prove conclusively that having expectations for riders of all abilities produces achievements beyond the normal. The need to balance calculated risk taking with the requirements of an increasing litigious society and meeting insurance requirements are at the core of this study. The study compares one group of riders who were given "pony rides" with no expectation of improvement and a group of riders who were challenged every lesson.

Measuring improvement required both tangible and intangible concepts. Riding benefits cannot be regarded in black and white terms. The case studies have been constructed to include the vital intangible achievements. The basic assessment tasks are measured using RDAA Tracker forms.

A cross section of disabilities both physical and mental have been included in the study. Likewise there is a wide variety of ages.

The study was undertaken over 12 months with most participants riding at least 20 times



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The RDA Endeavour Award: Celebrating Achievement, and the Power of Recognition and Reward in the RDA Education Programme

Ms Denise Robertson¹, Miss Marisa Bretherton-Mackay¹

¹Riding for the Disabled Association, Warwick, United Kingdom

Study title

The RDA Endeavour Award:

Celebrating Achievement and the Power of Recognition and Reward in the RDA Education Programme

Background and statement of problem

The RDA Education programme has long underpinned activity within RDA Groups, and is subject to continuous development to meet the varied and changing needs of participants. A clear demand was identified for an award that allowed freedom for coaches to set individualised goals with participants; giving recognition for more basic equestrian skills (below or equal to the proficiency test pathway) and to achieve non-equestrian goals for self-esteem, confidence or behavioural/emotional support.

Study aim and objectives

Investigations showed that the new award should be visually appealing (a motivational tool) and completely flexible; giving coaches and participants the ability to set goals, without the constraints of syllabuses. The overall aim of Endeavour was to open up the education pathway in RDA to more people than ever before.

Study design

A simple award was designed for immediate launch, with accompanying resources (certificate, badges and guidance), as the programme could only be evaluated once being delivered on a 'live' basis.

Study population and sampling

The programme has been rolled out to all 480 RDA Groups in the UK. Data indicates that around 45-50% of groups are currently participating at any one time.

Data collection methods and measures

Every award ordered by RDA Groups is recorded centrally and we are therefore able to gain an accurate picture of how, and where, the awards are being used. An independent impact study was also commissioned in early 2017, using a small study group, for qualitative data.

Data analysis methods

Data is analysed centrally at National Office, with both formal surveys and unsolicited feedback being regularly used to evaluate success



Duration of study

Endeavour has now been offered in RDA for four years, and investigations into its efficacy are very much a continuous project

Outcome/Results

~17,000 awards have been made to date. The response to the launch of Endeavour, participation figures and constant feedback suggest that this award is now an invaluable tool, and vastly enhances the RDA experience for participants and volunteers.



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Analysis of the horseback rider trunk's biomechanics in the function of the positioning of the horse neck during the step

Ms Juliana Ganem Fernandes Pires¹, Dr Fernando Copetti¹, Ms Claudia da Costa Mota¹

¹*Instituto Passo A Passo Equoterapia , Itatiba , Brazil*

Introduction: importance has been given to the horse's morphological and biomechanical characteristics, riding equipment, soil type, displacement, speed, in therapeutic riding interventions. However, there was few research published about the influences in the rider due to the manner the auxiliary guide leads the horse. Considering that horse's neck extension or flexion modifies the horse's back physiological curvature, it is speculated that such variations may produce different demands on the rider's postural control, which, in this study, will be represented by changes in trunk inclination. Objective: Investigate if different horse's neck position during walking produces changes in the rider's trunk angle. Method: Ten healthy female volunteers, between 25 and 45 years old, with a healthy standard body mass index (BMI) were selected. Seventeen years old, 1.45cm tall, weighing 413kg arabian horse was used, with overlapping engagement, walking on average 88 steps per minute. The body markings were made based on validated procedures for palpation of bony prominences. Kinovea 0.8.15 software was used for the analysis of the rider's trunk and horse's neck kinematics. The horse was led walking on a straight course, with the neck in neutral position, then with neck flexion and at last with neck extension. The angulations analyses were made frame by frame during a complete cycle of horse step. The angle analyzed in the horse was between the nuchal ligament's occipital insertion, the midpoint of the base of the neck and the lumbosacral point. In human subjects was analyzed the angle between the acromion, femur's major trochanter and the vertical line parallel to gravity. Results: Changes in the position of the horse's neck by the guide produced changes in the position of the trunk of the rider. Although the postural adjusts varies in each subject, there was a detectable tendency for a greater posterior inclination of the rider's trunk during the extension of the horse's neck, as well as greater anterior inclination when the neck is flexed. Conclusion: the modification of the horse's neck position by the auxiliary guide promoted detectable changes in trunk angulation of the rider subjects. Such findings may help in intervention strategies elaboration.



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Equinotherapy and Psychomotricity; a mediation for therapeutic purposes.

Licenciada en Psicomotricidad Karina Arrieta¹

¹*Centro Nacional De Fomento Y Rehabilitación Ecuestre, Montevideo , Uruguay*

During my professional and academic training as a Licentiate in Psychomotricity and as Instructor of Equestrian Rehabilitation since 2010 I was able to verify in theory and in practice how both disciplines complement and enrich each other. The work mediated with the horses and it's surroundings proposes a new time-space device and possibilities to be able to apply the bases and tools that the Psychomotorist has. The following work is based on my final Thesis which defines the theoretical bases of Horse Therapy as a mediation in Psychomotricity for therapeutic purposes, reaffirming the effectiveness of work with equines from the different applied disciplines and Equinotherapy as a therapeutic method of intervention for the education, reeducation and / or rehabilitation of people with disabilities, alterations of neurodevelopment and / or psycho-emotional difficulties.



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Current situation of horse therapeutic world in Japan and future efforts

Ms Kiginu Nakata¹

¹*Yuruyaka Net, Yokohama.kangawa, Japan*

in Japan, since beginning of this 2018, we have been stepping forward on a national scale. Ministry of Agriculture and JRA (Japan Racing Association) are supporting the NRCA (National riding Club Association of Japan) to infrastructure the therapeutic riding for disabled riders in Japan. At the same time, JEF (Japan Equestrian Federation) started to take a leadership in Para Equestrian sport in Japan. And also since several years ago, we RDA Japan is united with other 3 association (Japan therapeutic Riding Association, Japan Riding Association for Disabled and Harmony Center) to form a group called "Yuruyaka Net Work" to work together to be centripetal force in this field, aiming for development of this field, although currently our activity is mainly in academic meeting but willing to expand it more throughout Japan. So we have organized a "HETI Level1 instructor course phase 1" in last November and we hold also phase 2 in this March.

Compared to Western countries, Japan has been lagging behind the culture of horses and welfare, but efforts to raise the current state have started. I hope that we will show solidarity with administrative and medical staff and encourage further awareness of activities that attract disabled people with horses intervening.



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The Horse Sense project – the value of using an equine setting to meet therapeutic goals

Ms Audrey Darby¹, Ms Terri Brosnan¹

¹ChildVision National Education Centre for Blind Children, Dublin, Ireland

Background & Statement of Problem

Occupational Therapists in ChildVision decided to explore the benefit of working toward therapeutic goals for children with a visual impairment through the use of horses rather than working more traditionally in a therapy gym environment. The program developed to do this is called the 'Horse Sense Program', which is a weekly group input run over 6 weeks. Background information is gathered, detailed parent interviews take place and goals are set. For the pilot group, the children attended the group in the equine centre in ChildVision for an hour long session once a week for the six weeks. Theories underpinning the development of the program included Group Dynamics, Sensory Integration, Model of Human Occupation, and International Classification of Functioning. A research article on this pilot study has been published in the Irish Journal of Occupational Therapy (Kim Heffernan, (2017) "The effect of an equine assisted therapy (EAT) programme on children's occupational performance – a pilot study", Irish Journal of Occupational Therapy, Vol. 45 Issue: 1, pp.28-39). This presentation will outline the Horse Sense Program, discuss some of the research results and look at how the program can be adapted to different settings.

Study Aims and Objectives

The aim was to assess the effectiveness of the use of the 'Horse Sense Program' – a structured program of intervention using horses and the therapeutic medium – to achieve specific client centred therapeutic goals for 6 children over a period of six weeks.

Study Design

Pilot Study. Mixed methods were used in this pilot study, consisting of a pre- and post-design with two follow-up periods

Study Population and Sampling

Two groups, each with three children, were run following the Horse Sense structure. Outcome measures specifically related to the field of Occupational Therapy were used to monitor any changes in targeted areas. Participants were aged between 5 and 10 years with a diagnosis of a visual impairment, and some had additional diagnoses.

Data Collection methods and measures

The Canadian Occupational Performance Measure (COPM) was administered to parents pre-programme, post-programme and approximately six weeks after the programme ceased.

Data Analysis Methods

Analysis of the parental outcome measure (COPM) was carried out. Additional information from notes that contained children's and parents' reports was analysed thematically.



Duration of Study

The program was run for the purposes of this study for a six week period – one hour long session was held each week.

Outcomes / Results

The results from the outcome measures and parental reports suggested that this program had a positive impact on all the children's occupational performance in varying degrees. The results also indicated that half of the children learnt to cope better with their sensory processing difficulties. Some of the children's results indicated that there were lasting effects in specific areas at the six week follow up assessment. All parents reported positive changes and have requested to re-engage in the Horse Sense Programme in the future. Since this project, the format of the group has been tried with children with autism. Observations and parental reports suggest that this is a structure that is usable across different client groups and different needs.



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The Effectiveness of Equine Assisted Occupational Therapy – Case Study Presentations

Ms Terri Brosnan¹, Ms Audrey Darby¹

¹*ChildVision National Education Centre for Blind Children, Dublin, Ireland*

Background and statement of problem

Occupational Therapists are involved in the diagnosis and support of children to reach their functional potential. At Childvision, we are developing a unique multidisciplinary service that combines Occupational Therapy with Equine Therapy to improve outcomes in clients with ASD. It is called Equine Assisted Occupational Therapy (EAOT) and this poster highlights a number of case studies where this intervention has been effective

Study Aims and Objectives

The aim of the poster presentation was to show a number of case studies where Equine Assisted Occupational Therapy has been effective in helping children and young adults with a range of disabilities reach therapeutic goals which enhance their occupational performance. The poster highlights parental testimonials of the value of therapeutic input using horses as the therapeutic medium to help their children reach their functional potential.

Study design

Qualitative study using parental testimonials

Study population and sampling

The population used were a clients referred to the Equine Assisted Occupational Therapy service over a period of 12 months from April 2017 to April 2018. Parents, in partnership with the Occupational Therapist, made focused goals for their childrens' input during their time in the service, and provided a subjective testimonial as to the effectiveness of using an equine setting to help them reach therapeutic goals following a period of intervention.

Data collection methods and measures

Parental interview.

Data analysis methods

This poster merely displays parental opinion and subjective testimonial on how they found the use of an equine setting to achieve Occupational Therapy goals for their child.

Duration of study

The clients involved in the study were referred to the service between April 2017 and March 2018. They all had approximately 3 months of intervention prior to providing a testimonial.

Outcome/Results



The poster presentation highlights that the parents involved in the study were satisfied with the goal achievement obtained for their child during their therapeutic intervention period in ChildVision Equine setting where horses were used as the therapeutic medium to work towards specific goals for their child.



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Lunchtime Session: Round Table Discussion on Education

Mrs. Anne Rokka

¹*Equine College Hevosopisto, Ypäjä, Finland*

Round Table Discussion on Education

Anne Rokka, Education Designer in Equine College Hevosopisto

Sanna Mattila-Rautiainen President of HETI federation

The "Round table discussion on education" was set up for the HETI international congress in Dublin after receiving several requests from HETI members. Two of the main topics put forward were:

- 1) Clarification of Terminology
- 2) Education in EAA/T

Since the area of EAA/T is expanding all the time it is essential we broaden our understanding of different National and International education programmes currently in place.

For the basis of this round table discussion a survey was conducted and analyzed in order to generate topics for discussion.

The primary aim of this round table discussion is to answer the questions put forward by the members and to help clarify the educational field with the aid of a Facilitator.

Since terminology is tightly linked to education it may produce some common understanding in that area too.



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Going Over The EDGE

Mr. William Micklem

THE CHALLENGE

Going Over The EDGE is the result of a search for simplicity in the mental attributes of all performers. The challenge is to find common ground and transferable skills, both between all coaches, trainers, teachers and therapists and also between all participants, in order to allow greater efficiency and more flexible use of resources. It is a simple structure that is at the heart of good social, emotional, physical and academic performance.

THE BACKGROUND

Effective learning and performance will always be more about attitude of mind than aptitude or intelligence, but the inspiration for us all and life enhancing truth is that we can all have a great attitude of mind, including being open-minded, resilient, optimistic and cooperative. However these skills are often neglected for all age groups, with many participants being unaware of their value and how they could transform their lives.

The good news is that these soft skills and attitude of mind can be improved. We are all works in progress as the brain has neuroplasticity, continually reorganizing by forming new neural connections throughout life, allowing adaption to any and all experiences. But there are two sides to this coin, as it is just as easy to generate negative changes as positive ones, such as anxiety and depression. Therefore we have to work at the right attributes as we set out to improve soft skills.

The EDGE has many similarities with other research looking at key life skills, preventing cognitive decline, and developing mental well-being. The overall aim is for both a productive life and a balanced life whatever the individual strengths and weaknesses.



THE PRESENTATION

This unique powerpoint presentation is designed to be widely accessible and memorable, with simplicity a key objective. Three main areas are highlighted with the need for personal responsibility being a linking thread. In addition an essential part of the EDGE is that all three of these main components work not in isolation but together. They are a team and each is required for the right balance. The three components being enquiring, demanding and generous.

The presentation is wide ranging including how these key attributes are applicable to horse training, aspects of William's own training and performance successes and failures, including the Micklem bridle, and other powerful stories and research. The presentation includes the added value of handouts emphasizing the key points and also an introduction to The GO! Rules, William's outstandingly successful structure for helping young people improve their performance.