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Curriculum vitae:

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Expected: Dec 2024
Ph.D. Candidate in One Health
Thesis: Understanding the Welfare of Horses working in Equine-Assisted Services: A multi-method approach
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Aberystwyth University, Wales, UK
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M.Sc. in Equine Science
Thesis: An Investigation of the Multiple Ovulation Characteristic of Equine Breeds using Genetic Analysis
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B.Sc. in Equestrian Studies
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Category: Oral presentation

Topic: Horse Related Topics: Equine Welfare

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Title: THE OCCURENCE OF A TAIL SWISH RELATED TO DECREASE GROUND FORCE IN HORSES WORKING IN EQUINE-ASSISTED SERVICES

Keyword 1: Equine behaviour

Keyword 2: Equine gait

Keyword 3: Horses in EAS

Abstract:

Horses utilized in mounted Equine-Assisted Services (EAS) are removed or retired from programs most often due to behavioural or soundness issues. Our objective is to assess the horse's gait and behaviour without a rider to gain a clearer understanding of the potential relationship between gait asymmetry and behavioural issues. The hypothesis is that horses with lower vertical ground reaction force (GRF)

in a leg will show an increase in discomfort behaviours. To investigate the relationship between gait and behaviour, a study was conducted on horses (n = 22) from four EAS centers. These horses had all been actively involved in EAS programs for at least a year. Tendiboots™ gait analysis boots were attached to all four lower legs. The horses' gait was evaluated at a walk during a warm-up period on three separate days, following a repeated measures design. Tail swishing, head toss, and bite behaviours were counted throughout the warmup. Data were analysed using a negative binomial model. One tail swish occurred for every 0.002 N decrease in GRF in the left front (LF; P = 0.03), 0.002 N in the right front (RF; P = 0.03) a 0.002 N decrease in the left hind (LH; P = 0.04) and 0.002 N decrease in the right hind (RF; P = 0.02). One head toss would occur for every 0.16 N decrease of the LF (P < 0.05) 0.09 N decrease of the RF (P = 0.02). Head tossing did not have a relationship with LH or RH limbs. Biting behaviour did not have a relationship with GRF in any limb. These results suggest that tail swish may be a predictor of decreased force on any limb whereas head toss may be a predictor of decreased force on a front limb. These results show that discomfort behaviours may indicate limb pain or unsoundness.