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This Girl Can: an Equine-Assisted Teaching Service Evaluation

Thesis submitted to the University of Plymouth for the MSc in Clinical Psychology by
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The work reported in this thesis received ethical approval from the Faculty of Health and Human Sciences and complies with the guidelines set by the British Psychological Society.

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Abstract

This study is a service evaluation of the equine assisted learning activities that were offered to girls and women over sixteen years old, from the Mare and Foal Sanctuary in Devon. The programme was part of the “This Girl Can” campaign, which is aiming to promote exercising amongst women. The study investigates if there is any change in self-reported wellbeing measures that were taken pre and post the equine sessions and analyses data from feedback forms.

A paired samples t-test was used to compare the pre and post measures and content analysis was utilised for the text from the feedback forms for sixteen participants. The quantitative data showed a significant change in the participants’ wellbeing. The qualitative data analysis generated five categories, which were personal satisfaction, service satisfaction, staff attitude, highlights of the programme and externally validated change.

The study concludes that the intervention was effective, despite certain limitations. This means that the difference in the participants’ wellbeing was noticeable and beneficial at the end of the intervention. The participants were satisfied from the service and the staff’s attitude. They found the sessions helpful and uplifting. Most of them reported that because of the equine activities, their mental health improved, and this was observable by both them and others.

Research for the effects of equine assisted learning is limited, therefore this study can be used as an addition that shows the positives and supports previous outcomes. It is applicable to various clinical population, and it could become a popular treatment.

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Introduction

Animals, like humans, are considered to have souls. In many ancient societies they were considered to have spiritual powers and were viewed as protectors and guardians of the humans (Fine, 2015). The notion of the animal guardian spirits that had the ability of giving ill health, when displeased, and subsequently healing, when they were pleased, was abandoned in most recent years (Fine, 2015). It was replaced by the more ‘scientific’ idea that animals are companions and have therapeutic properties. From Florence Nightingale to Sigmund Freud and later Boris Levinson, the importance of animals as therapeutic agents was noted and slowly started to be researched (Ernst, 2014). In fact, Levinson identified the importance of animals in the development of someone’s personality (Levinson, 1978) and highlighted the need for further research into the relationships that are forming between humans and their pets (Levinson, 1982).

Different animals have been used for therapeutic purposes, over the years. Specifically, horses have been evidenced to be an ideal therapy animal for adults and children with mental health and behavioural issues (Cantin & Marshall-Lucette, 2011). References of equine therapy were found as far back as in the ancient Greek literature (Equine Assisted Therapy, 2016), but it was the 1970’s that therapeutic horse riding started to arise and be researched more consistently (Cantin & Marshall-Lucette, 2011).

Hippotherapy or else equine-assisted therapy, involves a horse, its handler, a therapist and of course the person in therapy. The role of the horse is to facilitate awareness and interaction (Hultsjö, & Jormfeldt, 2021). Even though Cantin and Marshall-Lucette (2011) argued that this type of therapy has a significant impact on people with mental health and/or behavioural problems, they have also indicated the need for further research. Since then, there have been plenty research papers underlining the benefits of equine-assisted therapy.

In research from Earles et al. (2015), where people with posttraumatic stress disorder (PTSD) and anxiety symptoms were supported with equine-assisted therapy, it was reported that after the sessions they experienced reduced symptoms of PTSD and depression, milder emotional responses to trauma, less generalised anxiety, decreased alcohol consume and increased mindfulness strategies. Similarly, Bizub et al. (2003) reported psychosocial benefits, including increased self-efficacy and self-esteem, for individuals with psychiatric disorders.

On the contrary, Holmes et al. (2011) found no significant change in the adolescent participants' self-esteem, but they reported reduced anxiety. Ewing's et al. (2007) findings agree with Holmes et al. (2011), as they found no significant increases in self-esteem, interpersonal empathy and internal focus of control and no significant decreases in feelings of depression and loneliness. However, the population that they measured was youths with severe emotional disorders and this might have affected the results.

Other research suggests psychosocial benefits in youth "at risk" (Burgon, 2011) and Bachi's et al. (2011) results align with that, reporting positive change in self-image, self-control, trust and life satisfaction in general for "at risk" adolescents. In parallel with that, Schultz et al. (2006) argue that children that have experienced domestic violence are positively affected by equine assisted learning.

Additional research shows a decrease in psychological distress and augmented psychological wellbeing, immediately after treatment with equine-assisted therapy (Bivens et al., 2007). Beneficial outcomes in clinical practice are also suggested in research by Masini (2010), Notgrass and Pettinelli (2014), Chardonnens (2009) and Johansen* (2008). They all highlighted the role of the horse as a non-judgemental co-therapist and its effect in facilitating growth, building rapport and trusting relationships and enabling change.

This paper is trying to add on the research mentioned above and is exploring if there are any changes in the participants undertaking activities with the horses at the Mare and Foal sanctuary in Devon (*Rescue Horses Work as Therapy Animals to Support Women*, 2022). The project at the Mare and Foal sanctuary is part of the national “This Girl Can” campaign, which runs in the UK by Sport England (*This Girl Can*, 2015), since 2015, and is funded by the National Lottery.

The “This Girl Can” campaign is aiming to promote and enable women to exercise. As research has shown (*Physical Activity*, 2020), 65.3% of men were physically active in the year to November 2019, versus 61.5% of women. Agreeing with the above figures Women in Sport (2022) proclaims that 516,300 more women than men are inactive in England. Although the reasons for this difference vary, the consensus is that there is a need for boosting women’s physical activity.

“This Girl Can” is reacting to this need and encourages women to participate in any activity that they like, from walking to kickboxing. The campaign’s motto sums up in the phrase “come as you are” (*This Girl Can*, 2022). Women of any background, any age or ability are invited to choose one or more activities and start their journey to become more active.

As part of the “This Girl Can” campaign the horse activities at the Mare and Foal Sanctuary were offered only to women. The activities were aiming to promote exercise and prompt women to be more active and this study is aiming to evaluate the service. This service evaluation has the twofold objective to determine if there were changes in the women’s mental health and overall wellbeing and to explore if the programme was effective, using quantitative and qualitative data, which were gathered by the staff at the sanctuary.

Methods

Study Design and Tools

The study employed the mixed method approach and specifically the explanatory, sequential (Ivankova et al., 2006). Quantitative and qualitative data were collected by the staff at the Mare and Foal Sanctuary. Even though the feedback forms (i.e., qualitative data) and the post sessions questionnaires (i.e., quantitative data) were collected simultaneously, for the purposes of this paper it will be assumed that they were sequential, first the quantitative followed by qualitative data. This is because the quantitative data will help answer the research question and the qualitative ones will provide a more in depth understanding of the matter (Creswell & Clark, 2017).

The quantitative data were collected pre and post sessions, using the WHO questionnaire (*The World Health Organisation- Five Well-Being Index (WHO-5)*, 1998). From these raw scores, a change percentage was identified for each participant. A paired t-test was conducted to explore if there is a significant difference between the pre and the post scores (Stewart, 2021). The paired t-test is the most appropriate testing for these data because it assesses the difference between two measurements of the same subject (Stewart, 2021).

The qualitative data were derived from text from feedback forms that were provided after the intervention was finished. A content analysis (Krippendorff, 2018) was deemed to be the appropriate method, as this type of analysis is used primarily for analysing documents and describing and quantifying the phenomena observed in the text (Elo & Kyngäs, 2008). The frequency of words, as well as the meaning of the text, was used for coding and from that, specific themes were identified.

Mostly quantitative data were also derived from a survey questionnaire that was given to the participants to complete at the end of the six weeks. This survey was part of the “This

Girl Can” project (*This Girl Can*, 2015), and needed to be done to fulfil the purposes of the campaign.

Participants

Twenty girls and women over sixteen years old were recruited in the period from November 2021 until June 2022 but only sixteen of them, finished the programme and therefore the data come from them. The participants that dropped out had different reasons such as transport issues, physical or mental health issues that hindered their participation. The participants were allocated in cohorts and as the programme is still running, more data will be available by October 2022 when the programme finishes. The aim is for the programme to be delivered to thirty-six participants in total.

Participants were either self-referrals, who had seen the BBC Spotlight news clip (*Rescue Horses Work as Therapy Animals to Support Women*, 2022), or were referred by local social prescribers, who were presented with information about the programme and recommended it to their patients or clients who they thought would benefit from it. There were three participants who completed the HETI Frontline worker programme (*HETI(UK) Frontline Workers Programme*, 2021) with the sanctuary and had the opportunity to stay to complete the “This Girl Can” programme, too.

Procedure

All participants were provided with an initial letter, a referral form, cohort dates and a consent form. The recruitment process and collection of data were co-ordinated by the Mare and Foal Sanctuary in Devon (Mare & Foal Sanctuary, 2022). The sanctuary is a charity that rescues horses and ponies that have been abandoned or neglected and with their equine assisted learning and therapy programmes they aim to create a sanctuary for people within the mare and foal sanctuary. Even though the data were secondary, ethical approval has been gained by the university’s faculty ethics committee.

As described above, participants were asked to complete a consent form before the start of the programme, along with the WHO questionnaire (*The World Health Organisation-Five Well-Being Index (WHO-5)*, 1998). The WHO questionnaire is a self-reported current mental wellbeing index that has been validated (Topp et al., 2015) and can be used to people from the age of nine. It consists of five statements, which the respondents rate on a Likert scale from 0 (at no time) to 5 (all the time). The final score is calculated by the raw score (0-25) multiplied by four, with one hundred being the best imaginable wellbeing and zero the worst.

The next step was to start the sessions, which were ninety minute long, on a weekly basis for six weeks, working in groups of six. Sport England funded all sessions. The six sessions included ground based equine interactive activities with the horses and ponies and the supporting staff. All activities were aiming to actively work with and care for the rescued horses and ponies. The activities were involving gentle exercises, supported by the experienced staff, in hand walks around the site, basic leading and agility both indoors and outdoors. Also, the participants were engaged in grooming, filling hay nets and basic field management.

On completion of the programme after six weeks, the participants were asked to complete the WHO questionnaire again, along with a feedback form and the brief survey questionnaire.

Data Analysis

The data from the feedback forms were analysed using the content analysis method (Erlingsson & Brysiewicz, 2017). This method allowed to refine the words into content-related themes that share meaning (Elo & Kyngäs, 2008).

According to Elo and Kyngäs (2008), there are two ways to do content analysis, inductive and deductive, and the choice depends on the previous knowledge on the topic, as

well as the topic itself. Both ways have three main stages, which are preparation, organising and reporting. Preparation and reporting are similar, whilst the organising stage differs.

For this study, the inductive way was the most suitable route to follow, as the knowledge was fragmented (Elo & Kyngäs, 2008). Despite adhering to the three stages mentioned above, the process was flexible and reflective (Erlingsson & Brysiewicz, 2017).

In the preparation stage, the first step is to select the unit of analysis, directed by the aim of the study (Robson, 1993) and the second to make sense of the data and the whole (Polit et al., 2003). For example, the word “yes” was used to answer the questions from all the participants, so that word was selected as one unit of analysis. This word also helped to recognise the satisfaction that was present in the data.

In the organising stage, there are three broad steps. The first one is open coding, which means that headings and notes are written to describe the content of the text (Hsieh & Shannon, 2005). The second one is to group the data in order to create categories. The grouping reduces the categories and according to Dey (1993) it allows comparisons between the data and distinguishes the categories. The final step is abstraction, which means that the categories are formulated. Content-related, generic categories are being grouped from sub-categories and then they generate the main category (Dey, 1993; Robson, 1993). Specifically, for the study, due to lack of elaborate data, the second and third step were combined. The available data were grouped, and the main categories emerged from that.

The third and final stage of reporting the categories and the results is self-explanatory and it adheres to both the inductive and deductive way. The formed categories, along with statements or words from the text are being presented (Elo & Kyngäs, 2008).

Because of the subjective nature of the content analysis, there is a need for proving validity and reliability of the data (Potter & Levine-Donnerstein, 1999). According to Potter and Levine-Donnerstein (1999), the nature of the content and the role of the theory, play an

important role in the matter. In this study the content is manifest, meaning that it is observable, objective and purely computational. The theory is inductive, meaning that the results are presented in a descriptive way and then they are put in a general context (Potter & Levine-Donnerstein, 1999). Therefore, the validity and reliability of this study seems to be strong as it is devoid of personal hermeneutics, the handling of the data is clerical and there is minimal interpretation when the categories are formed (Krippendorff, 2018).

Results

Quantitative

A paired samples t-test was conducted to compare the participants' wellbeing before and after the equine activities, using the R studio software (see Table 1).

The results from the pre-sessions ($M = 48.2$, $SD = 14.8$) and post-sessions ($M = 58.8$, $SD = 20.9$) questionnaire indicate that there was a significant change in the participants' wellbeing, $t(15) = 2.31$, $p = .03$

Table 1

Paired Samples T-Test Comparing the Difference in Means of Pre and Post WHO Scores

Paired t-test	M	SD	95% Confidence Interval		T	Df	Sig. (2- tailed)
			Upper	Lower			
Difference	10.5	18.1	20.1	0.8	2.31	15	0.03

Note. M and SD represent mean and standard deviation.

Qualitative

From the feedback forms, five themes or main categories emerged. These are presented at Table 2 below.

Table 2*Emerging Themes that were visible in all the replies*

Themes	Examples of codes
Personal Satisfaction	“valuable experience” “enjoyed” “happy” “relaxed”
Service satisfaction	“met expectations” “exceeded expectations”
Staff attitude	“caring” “fantastic” “kind” “compassion”
Highlights of the programme	“long reining” “lovely environment”
Externally validated change	“positive impact” “happier” “more relaxed”

Personal Satisfaction

All the participants agreed with the questions “Did the sessions meet your expectations?” and “Would you book further equine assisted activity sessions with us? or Would you recommend our service to others?”

In particular, eleven participants replied “yes” in the first question and the rest gave the following answers: “Totally”, “Loved it”, “Overwhelmingly. So relaxed and helped me forget”, “Definitely” and “Exceeded expectations”.

In the second question, fourteen participants replied with “yes”, and the other two replied “Definitely” and “Probably/Definitely”.

Service Satisfaction

As described above, all the participants agreed when asked if they would recommend this service. Moreover, in the question “Could we improve the sessions? If so, how?” eight participants replied “no” or similar like “Carry on the great work.”, five participants requested longer or more sessions, one left it blank, one replied “Catch up sessions for those who miss out.” and one said “Riding”.

Staff Attitude

From the question “Did our staff demonstrate our core values of kindness, care and knowledge through their delivery?”, it was identified that the staff’s attitude corresponded to the above values. All of the participants replied with words that shown agreement, like “Yes”, “Absolutely”, “Definitely. They are all amazing”, “100%”.

Highlights of the Programme

Most of the participants reported that they enjoyed the time spent with the horses and ponies, walking and grooming them. Indicative replies were: “Long reining”, “I have really enjoyed the 1:1 time spent with the horses, grooming them. But I have enjoyed everything.”, “It was the tuition that highlighted. I particularly enjoyed long reining”. “Lovely environment with ponies. Therapeutic feel and calm and loved after sessions.”. One replied “Everything!” and one “The sessions in the school.”.

Externally Validated Change

Eleven participants have replied using the word “yes”, when asked if they or family and friends have noticed a positive change after the sessions. The others said, “Happier in myself and my husband noticed too”, “Loved hearing my stories”, “It was noted that the course above had done me good. It certainly motivated me.”.

There were two replies that stated that there was no noticeable positive change saying, “Not sure I did” and “Not specifically (but I hide my anxiety from them)”.

Other Comments

There was a comments section in the feedback forms, where the participants could write down any other comments. These contributed to the formation of the themes, as the participants were repeating themselves. For example, “The main positive was the helpfulness and knowledge and friendliness of all the team at the sanctuary.” However, some of the comments stated that they helped their confidence levels (“I have thoroughly enjoyed the

sessions and cannot rate them highly enough. They have helped give me back a bit of confidence and I have enjoyed meeting some lovely people...It has been uplifting.”) and their mental wellbeing (“Valuable experience to my mental wellbeing...I feel happy and relaxed during the sessions...I have loved working with horses.”). These were included in the most appropriate theme.

General Observations

In overall, the word “yes” was spotted forty-five times in the texts, the word “love” or “loved” was used fifteen times. Words like “absolutely”, “totally” and “definitely” were spotted thirteen times. There were more than twenty references to wellbeing and health, like “mental health wellbeing”, “confidence”, “relaxing”, “learning”. These references included positive words, like “positive”, “fun”, “enjoyed”.

Mixed

Survey

As described above, the survey was distributed for completion at the end of the six weeks, and it was a requirement of the “This Girl Can” campaign to fulfil their own research purposes. For unknown reasons, only twelve out of sixteen participants completed this survey.

The survey consisted of thirty questions and in most questions, the respondents had to choose their level of agreement on a Likert scale. Only two questions required the input of a comment from the participants. Three surveys were completed in January, three in February, five in April and one in May. This is because of the cohorts that the participants were assigned to, that affected the time of completion.

The respondents were asked to state the main activity they participated in as part of this programme. Two out of twelve participants reported “working with horses” and “equine therapy” as the main activity that they participated. They both stated that they had never participated in this type of activity before. One of them stated that she intends to participate in

this activity once or twice in the next six months and the other stated that she does not know. They both reported being white. One of them reported having a physical health condition or illness. They both rated their experience with a ten. One of them explained this rating saying, “I feel I have learnt a great deal about horses and the team are amazing”. The other gave the explanation “I am very appreciative of how friendly, encouraging and non judgemental everyone has been, especially when I struggle with anxiety/ depression daily and the sessions have made me realise just how much I love horses”.

The rest of the questions were exercise and activity related and they go beyond the purpose of this study. However, there were some questions that could be part of this study, but no answers or incomprehensible ones were provided. The results of the surveys were available through an Excel spreadsheet and the actual survey questionnaire was not available to the author.

Discussion

The above results indicate that there was a positive and noticeable change in the participants. The t-test suggests that there was a significant difference in the participants’ self-reported wellbeing after the sessions had finished. This result is complemented by the themes that emerged from the qualitative data. It appears that the programme was a beneficial and enjoyable experience for all participants, that made a difference in their lives. The data from the survey, although limited, also add on the appreciation of this change.

Strengths and Limitations

In line with the results, the intervention seems to be effective. The data were measurable, and the objectives were clear. There was baseline, pre-intervention data that were compared to post intervention ones, that showed the impact of the intervention and the extent of change. The baseline data are important in this study because they allowed comparisons to take place before and after the intervention and their difference was measurable.

Furthermore, besides the quantitative data, there were qualitative data from the feedback forms, which give more depth and insight into the person's experience. Because of the small number of the participants, it was significant to have available these extra data to add on the evaluation.

However, the text in the feedback forms, was not elaborate. A lot of the replies were the single word "yes", which does not contribute much to the analysis and understanding of the person's experience.

Additionally, the outcomes measures were not so effective. The WHO questionnaire (*The World Health Organisation- Five Well-Being Index (WHO-5)*, 1998) has been found to have validity in measuring outcomes in clinical trials and when screening for depression (Topp et al., 2015). There were no demographic data to suggest that the participants in this study had a diagnosis for depression and the intervention was not a clinical trial. Moreover, the scale that is used in this questionnaire is not measuring levels, but only the time that something is experienced or not (*The World Health Organisation- Five Well-Being Index (WHO-5)*, 1998).

Because of the intervention not being a clinical trial, and being delivered in the real world, it might be difficult to control the effect of it on the participants' mental health, confidence levels, stress levels etc. Similar to the WHO questionnaire (*The World Health Organisation- Five Well-Being Index (WHO-5)*, 1998), the feedback forms did not have any questions related to mental health, confidence, stress etc., and even though these were mentioned in the respondents' replies, they were random, not allowing to be distinguished as a separate theme.

Recommendations

Since both tools (WHO questionnaire and feedback forms), seem to lack in efficacy, other forms of measures might be more appropriate. An alternative to the WHO index (*The*

World Health Organisation- Five Well-Being Index (WHO-5), 1998) it could be The Warwick-Edinburgh Mental Wellbeing Scales – WEMWBS (*The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)*, 2021). This is a fourteen-item scale that uses five response categories and is intended to measure the wellbeing in the general population. The difference with the WHO scale is that it has been validated in the general population (Tennant et al., 2007) and therefore it can be applied easily to the public, when there is not much background information available.

Semi-structured interviews could be an option instead of the feedback forms. That way the monolectic or blank replies could be avoided, as the interviewer could ask for clarification or additional information. This could potentially provide more data to analyse and give better insight into the person's experience.

Another suggestion to improve the intervention, it would be to include demographics during the recruitment process. The only demographics known were the gender of the participants (female) and the age (over sixteen) and this is due to the fact that the equine learning activities were part of the “This Girl Can” project. This could provide information like who is it effective for and what works for whom.

Furthermore, a scaled approach to the intervention might be useful, as it could make it more person centred. For example, is six weeks enough for all participants or is it working better when the approach is different to the individual?

Finally, for this intervention to be considered as evidence-based and for it to be validated and replicated, so it could be applied to more individuals, it would need to be the same delivery throughout. If it was a validated intervention it could add to the research about equine psychotherapy, and it could be an evidence-based intervention, that every horse centre could use with clients that require it.

Clinical Practice

However, regardless of the equine activities being validated as an intervention, there seems to be benefits when participating in such activities, especially for people that might struggle with mental health issues or similar. Therefore, application of equine assisted interventions appears to be a useful option in clinical practice.

Equine assisted learning seems to be beneficial with victims of domestic violence according to Porter-Wenzlaff (2007). The congruent relationship with the horse appears to be helpful to women, who have experienced abuse, and assists them to find their voice again (Porter-Wenzlaff, 2007). In a recent study Hemingway and Sullivan (2022), argue that troubled families with complex needs that were supported by keyworkers and participated in an equine assisted intervention, saw reduction in the domestic violence and child in need status.

Numerous research also focuses on the impact of this intervention on recovery from trauma and the improvement in social skills. Yorke et al. (2008) underlined the positive effect on self-efficacy, self-esteem and trust; qualities that are correlated with recovering from trauma. Cumella (2003) also found improvement in these qualities and a decrease in anxiety. Froeschle (2009) used Cumella's findings to empower abused women through equine assisted career learning. Another research shows positive neural changes to veterans that experienced PTSD, when equine-assisted therapy was complementing the treatment (Zhu et al., 2021) and more efficacy in daily tasks for patients suffering with PTSD (Shelef et al., 2019). Lac et al. (2013) also found that equine assisted learning can help clients with eating disorders and body image mis-conceptualisation.

Frederick et al. (2015), found that when hope was increasing, depression was decreasing among adolescents at risk that participated in equine assisted learning. Perkins' (2018) results indicated that there was an improvement in emotional regulation and

confidence for adolescents. Schütz et al. (2020) showed that equine assisted exercises improved emotional intelligence. Hemingway's (2019) study outcomes showed positive changes in empathy, communication, calmness, taking responsibility, planning, learning, focus and perseverance among youth that presented with mental health and behavioural problems. From this research it is evident that equine assisted learning is valuable in clinical practice, as it can be applied in a range of clinical populations.

Conclusion

This service evaluation aimed to determine if there is change in the wellbeing of girls and women over sixteen years old, who expressed interest to participate in equine assisted learning exercises, as part of the "This Girl Can" project. It also aimed to add to the research about the effects of equine-assisted learning and psychotherapy. Despite the limitations, the intervention was found to be effective and helpful for the participants. Moreover, the positive results agreed with previous research and thus it is an addition to it.

From body image issues and social skills to trauma and abuse, equine assisted interventions seem to work when others fail. Even if it is just complementary intervention, it appears to have advantages for the participants and is beneficial for mental health and overall quality of life. Even though more research is needed to establish it in the field as a first-line treatment, the effect of it is undeniable.

Despite the outcomes supporting other studies showing the benefits of equine assisted learning, it is suggested further research to take place, to explore if there is improvement in traits like emotional intelligence, self-efficacy, self-confidence and similar, as the research in those is limited. It is recommended using tools that will ensure quantity and quality of the data, to avoid restricted responses. This will help the data analysis and give better understanding of the experiences.

In overall, equine assisted learning seems to have the potential of becoming a more common treatment for people that might struggle with clinical disorders. Its advantages to both the general and clinical populations, appear to be a promising alternative to mainstream therapies. However, further research is needed to establish it as an evidence-based intervention.

References

Bachi, K., Terkel, J., & Teichman, M. (2011). Equine-facilitated psychotherapy for at-risk adolescents: The influence on self-image, self-control and trust. *Clinical Child Psychology and Psychiatry*, 17(2), 298–312. <https://doi.org/10.1177/1359104511404177>

Bivens, A., Leinart, D., Klontz, B., & Klontz, T. (2007). The Effectiveness of Equine-Assisted Experiential Therapy: Results of an Open Clinical Trial. *Society & Animals*, 15(3), 257–267. <https://doi.org/10.1163/156853007x217195>

Bizub, A. L., Joy, A., & Davidson, L. (2003). ‘It’s like being in another world’: Demonstrating the benefits of therapeutic horseback riding for individuals with psychiatric disability. *Psychiatric Rehabilitation Journal*, 26(4), 377–384. <https://doi.org/10.2975/26.2003.377.384>

Bruinvels, G., Burden, R. J., McGregor, A. J., Ackerman, K. E., Dooley, M., Richards, T., & Pedlar, C. (2016). Sport, exercise and the menstrual cycle: where is the research? *British Journal of Sports Medicine*, 51(6), 487–488. <https://doi.org/10.1136/bjsports-2016-096279>

Burgon, H. L. (2011). ‘Queen of the world’: experiences of ‘at-risk’ young people participating in equine-assisted learning/therapy. *Journal of Social Work Practice*, 25(02), 165–183. <https://doi.org/10.1080/02650533.2011.561304>

Cantin, A., & Marshall-Lucette, S. (2011). Examining the Literature on the Efficacy of Equine Assisted Therapy for People with Mental Health and Behavioural Disorders. *Mental Health and Learning Disabilities Research and Practice*, 8(1), 51–61. <https://doi.org/10.5920/mhldrp.2011.8151>

Chardonens, E. (2009). The Use of Animals as Co-Therapists on a Farm: The Child—Horse Bond in Person-Centered Equine-Assisted Psychotherapy. *Person-Centered &*

Experiential Psychotherapies, 8(4), 319–332.

<https://doi.org/10.1080/14779757.2009.9688496>

Creswell, J. W., & Clark, V. P. L. (2017). *Designing and Conducting Mixed Methods Research* (3rd ed.). SAGE Publications, Inc.

Cumella, E. J. (2003). Questions & Answers. *Eating Disorders*, 11(2), 143–147.

<https://doi.org/10.1080/10640260390199325>

Dey, I. (1993). *Qualitative Data Analysis: A User Friendly Guide for Social Scientists* by Ian Dey (1993–03-28). Routledge.

Earles, J. L., Vernon, L. L., & Yetz, J. P. (2015). Equine-Assisted Therapy for Anxiety and Posttraumatic Stress Symptoms. *Journal of Traumatic Stress*, 28(2), 149–152.

<https://doi.org/10.1002/jts.21990>

Edwards, E. S., & Sackett, S. C. (2016). Psychosocial Variables Related to Why Women are Less Active than Men and Related Health Implications. *Clinical Medicine Insights: Women's Health*, 9s1, CMWH.S34668. <https://doi.org/10.4137/cmwh.s34668>

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>

Equine Assisted Therapy. (2016, June 13). The Anxiety Treatment Center. <https://anxietytreatmentexperts.com/equine-assisted-therapy/#:%7E:text=Equine%20therapy%20dates%20back%20to,after%20an%20outbreak%20of%20poliomyelitis.>

Erlingsson, C., & Brysiewicz, P. (2017). A hands-on guide to doing content analysis. *African Journal of Emergency Medicine*, 7(3), 93–99.

<https://doi.org/10.1016/j.afjem.2017.08.001>

Ernst, R. L. N. (2014, October 2). *Animal-Assisted Therapy: An Exploration of Its History, Healing Benefits, and How Skilled Nursing Facilities Can Set Up Programs*. HMP

Global Learning Network. Retrieved 20 June 2022, from

<https://www.hmpgloballearningnetwork.com/site/altc/articles/animal-assisted-therapy-exploration-its-history-healing-benefits-and-how-skilled-nursing>

Ewing, C. A., MacDonald, P. M., Taylor, M., & Bowers, M. J. (2007). Equine-Facilitated Learning for Youths with Severe Emotional Disorders: A Quantitative and Qualitative Study. *Child and Youth Care Forum*, 36(1), 59–72.

<https://doi.org/10.1007/s10566-006-9031-x>

Fine, A. H. (2015). *Handbook on Animal-Assisted Therapy: Foundations and Guidelines for Animal-Assisted Interventions* (4th ed.). Academic Press.

Fine, A. H., & Andersen, S. J. (2021). A Commentary on the Contemporary Issues Confronting Animal Assisted and Equine Assisted Interactions. *Journal of Equine Veterinary Science*, 100, 103436. <https://doi.org/10.1016/j.jevs.2021.103436>

Frederick, K. E., Ivey Hatz, J., & Lanning, B. (2015). Not Just Horsing Around: The Impact of Equine-Assisted Learning on Levels of Hope and Depression in At-Risk Adolescents. *Community Mental Health Journal*, 51(7), 809–817.

<https://doi.org/10.1007/s10597-015-9836-x>

Froeschle, J. (2009). Empowering Abused Women Through Equine Assisted Career Therapy. *Journal of Creativity in Mental Health*, 4(2), 180–190.

<https://doi.org/10.1080/15401380902945228>

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

<https://doi.org/10.3390/j2020017>

Hemingway, A., & Sullivan, K. (2022). Reducing the incidence of domestic violence: An observational study of an equine-assisted intervention. *Family Process*, 61(2), 549–570.

<https://doi.org/10.1111/famp.12768>

HETI(UK) Frontline Workers Programme. (2021). Localgiving.

<https://localgiving.org/appeal/HETI-UK-FLW/>

Holmes, C. M. P., Goodwin, D., Redhead, E. S., & Goymour, K. L. (2011). The Benefits of Equine-Assisted Activities: An Exploratory Study. *Child and Adolescent Social Work Journal*, 29(2), 111–122. <https://doi.org/10.1007/s10560-011-0251-z>

Hsieh, H. F., & Shannon, S. E. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*, 15(9), 1277–1288. <https://doi.org/10.1177/1049732305276687>

Hultsjö, S., & Jormfeldt, H. (2021). The Role of the Horse in an Equine-Assisted Group Intervention-as Conceptualized by Persons with Psychotic Conditions. *Issues in Mental Health Nursing*, 43(3), 201–208. <https://doi.org/10.1080/01612840.2021.1975332>

Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using Mixed-Methods Sequential Explanatory Design: From Theory to Practice. *Field Methods*, 18(1), 3–20. <https://doi.org/10.1177/1525822x05282260>

Johansen*, S. (2008). Equine facilitated psychotherapy therapy in mood disorders. *Journal of Affective Disorders*, 107, S122. <https://doi.org/10.1016/j.jad.2007.12.143>

Klaperski, S., Koch, E., Hewel, D., Schempp, A., & Müller, J. (2019). Optimizing mental health benefits of exercise: The influence of the exercise environment on acute stress levels and wellbeing. *Mental Health & Prevention*, 15, 200173. <https://doi.org/10.1016/j.mhp.2019.200173>

Krippendorff, K. (2018). *Content Analysis: An Introduction to Its Methodology* (4th ed.). SAGE Publications, Inc.

Lac, V., Marble, E., & Boie, I. (2013). Equine-Assisted Psychotherapy as a Creative Relational Approach to Treating Clients With Eating Disorders. *Journal of Creativity in Mental Health*, 8(4), 483–498. <https://doi.org/10.1080/15401383.2013.852451>

Levinson, B. M. (1978). Pets and Personality Development. *Psychological Reports*, 42(3_suppl), 1031–1038. <https://doi.org/10.2466/pr0.1978.42.3c.1031>

Levinson, B. M. (1982). The future of research into relationships between people and their animal companions. *International Journal for the Study of Animal Problems*, 3(4), 283–294.

Lirgg, C. D. (1991). Gender Differences In Self-Confidence in Physical Activity: A Meta-Analysis of Recent Studies. *Journal of Sport and Exercise Psychology*, 13(3), 294–310. <https://doi.org/10.1123/jsep.13.3.294>

Mare & Foal Sanctuary. (2022, May 9). *Home*. Mare and Foal Sanctuary. <https://www.mareandfoal.org/>

Masini, A. (2010). Equine-Assisted Psychotherapy in Clinical Practice. *Journal of Psychosocial Nursing and Mental Health Services*, 48(10), 30–34. <https://doi.org/10.3928/02793695-20100831-08>

Notgrass, C. G., & Pettinelli, J. D. (2014). Equine Assisted Psychotherapy. *Journal of Experiential Education*, 38(2), 162–174. <https://doi.org/10.1177/1053825914528472>

Perkins, B. L. (2018). A Pilot Study Assessing the Effectiveness of Equine-Assisted Learning with Adolescents. *Journal of Creativity in Mental Health*, 13(3), 298–305. <https://doi.org/10.1080/15401383.2018.1427168>

Physical activity. (2020, October 12). GOV.UK Ethnicity Facts and Figures. <https://www.ethnicity-facts-figures.service.gov.uk/health/diet-and-exercise/physical-activity/latest#by-ethnicity-and-gender>

Polit, D. F., Beck, C. T., & Hungler, B. P. (2003). *Essentials of Nursing Research: Methods, Appraisal, and Utilization* (5th ed.). Lippincott Williams & Wilkins.

Porter-Wenzlaff, L. (2007). Finding Their Voice: Developing Emotional, Cognitive, and Behavioral Congruence in Female Abuse Survivors through Equine Facilitated Therapy. *EXPLORE*, 3(5), 529–534. <https://doi.org/10.1016/j.explore.2007.07.016>

Potter, W. J., & Levine-Donnerstein, D. (1999). Rethinking validity and reliability in content analysis. *Journal of Applied Communication Research*, 27(3), 258–284. <https://doi.org/10.1080/00909889909365539>

Rescue horses work as therapy animals to support women. (2022, January 7). BBC News. <https://www.bbc.co.uk/news/av/uk-england-devon-59901317>

Robson, C. (1993). *Real World Research*. Wiley.

Schultz, P. N., Remick-Barlow, G. A., & Robbins, L. (2006). Equine-assisted psychotherapy: a mental health promotion/intervention modality for children who have experienced intra-family violence. *Health & Social Care in the Community*, 15(3), 265–271. <https://doi.org/10.1111/j.1365-2524.2006.00684.x>

Schütz, K., Rahders, F., Mosley, E., & Laborde, S. (2020). Emotional competences training in equestrian sport – a preliminary study. *International Journal of Sport and Exercise Psychology*, 19(4), 613–625. <https://doi.org/10.1080/1612197x.2020.1819367>

Sharma, A., Madaan, V., & Petty, F. D. (2006). Exercise for Mental Health. *The Primary Care Companion to The Journal of Clinical Psychiatry*, 08(02), 106. <https://doi.org/10.4088/pcc.v08n0208a>

Shelef, A., Brafman, D., Rosing, T., Weizman, A., Stryjer, R., & Barak, Y. (2019). Equine Assisted Therapy for Patients with Post Traumatic Stress Disorder: A Case Series Study. *Military Medicine*, 184(9–10), 394–399. <https://doi.org/10.1093/milmed/usz036>

Stewart, A. (2021). *Basic statistics and epidemiology: a practical guide (Ebook PDF)*. Radcliffe Publishing Ltd.

Sung, B. J., Jeon, S. Y., Lim, S. R., Lee, K. E., & Jee, H. (2015). Equestrian expertise affecting physical fitness, body compositions, lactate, heart rate and calorie consumption of elite horse riding players. *Journal of Exercise Rehabilitation*, 11(3), 175–181.

<https://doi.org/10.12965/jer.150209>

Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J., & Stewart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and UK validation. *Health and Quality of Life Outcomes*, 5(1).

<https://doi.org/10.1186/1477-7525-5-63>

The Lancet Public Health. (2019). Time to tackle the physical activity gender gap. *The Lancet Public Health*, 4(8), e360. [https://doi.org/10.1016/s2468-2667\(19\)30135-5](https://doi.org/10.1016/s2468-2667(19)30135-5)

This Girl Can. (2015). Sport England. <https://www.sportengland.org/campaigns-and-our-work/this-girl-can>

This Girl Can. (2022). This Girl Can. <https://www.thisgirlcan.co.uk/>

This Girl Can – what about you? (2015, January 23). [Video]. YouTube.

<https://www.youtube.com/watch?v=jsP0W7-tEOc>

Topp, C. W., Østergaard, S. D., Søndergaard, S., & Bech, P. (2015). The WHO-5 Well-Being Index: A Systematic Review of the Literature. *Psychotherapy and Psychosomatics*, 84(3), 167–176. <https://doi.org/10.1159/000376585>

The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS). (2021). Warwick Medical School. <https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs/>

Women in Sport. (2022, January). *Stats Pack for Media*.

<https://www.womeninsport.org/wp-content/uploads/2022/01/Media-stats-pack-January-2022.pdf>

The World Health Organisation- Five Well-Being Index (WHO-5). (1998). CORC.

<https://www.corc.uk.net/outcome-experience-measures/the-world-health-organisation-five-well-being-index-who-5/>

Yorke, J., Adams, C., & Coady, N. (2008). Therapeutic Value of Equine-Human Bonding in Recovery from Trauma. *Anthrozoös*, 21(1), 17–30.

<https://doi.org/10.2752/089279308x274038>

Zhang, J., & Yen, S. T. (2015). Physical Activity, Gender Difference, and Depressive Symptoms. *Health Services Research*, 50(5), 1550–1573. <https://doi.org/10.1111/1475-6773.12285>

Zhu, X., Suarez-Jimenez, B., Zilcha-Mano, S., Lazarov, A., Arnon, S., Lowell, A. L., Bergman, M., Ryba, M., Hamilton, A. J., Hamilton, J. F., Turner, J. B., Markowitz, J. C., Fisher, P. W., & Neria, Y. (2021). Neural changes following equine-assisted therapy for posttraumatic stress disorder: A longitudinal multimodal imaging study. *Human Brain Mapping*, 42(6), 1930–1939. <https://doi.org/10.1002/hbm.25360>