

Comparing Perceptions of Equine-Assisted Therapy

Pryce Chrisman¹ and Bradley Boelman[#]

¹Calabasas High School, USA

[#]Advisor

ABSTRACT

Equine-Assisted Therapy (EAT) remains an undervalued and obscure therapy intervention for treating mental illness, despite its proven effectiveness. To understand the impact of this therapy on mental well-being, this study aims to examine the difference in perceptions of EAT between individuals exposed to it and those not. Through a mixed-method study, this study analyzes qualitative and quantitative data involving high-school students and individuals who work with horses. The first method used was a pre- and post-test survey design to evaluate perceptions based on an informational pamphlet. Next, individuals who work with horses were interviewed to analyze their experiences with horses and perceptions of EAT. Results indicate that high-school students have more of a negative perception of EAT, while the individuals involved in horse care have a more positive perception. This disparity was attributed to differing levels of exposure to horses, which contributes to the obscurity of Equine-Assisted Therapy.

Introduction

Traditional treatment options for mental illness, most prominently psychotherapy, remain highly regarded and valued in society. Psychotherapy is the treatment of emotional and psychological issues through verbal communication and interaction. In 2021, 41.7 million U.S. adults received mental health treatment through counseling, a 73.16% increase in adults receiving treatment since 2002 (2023). As society progresses and is faced with more challenges, it is clear that the popularity of mental illness treatment has risen. With the rise in popularity, it is important to note that there must be a wider variety of services provided to treat varying spectrums of mental illness. Despite the need for a wider variety of therapy options, non-traditional methods of psychotherapy remain undervalued. One method of undervalued psychotherapy is Equine-Assisted Therapy (EAT). EAT is a form of therapy that involves interactions between patients and horses through various activities, facilitated by mental health professionals, to promote emotional growth and healing within humans. Horses have demonstrated a therapeutic effect that has been supported by experimental intervention and patient satisfaction. For example, in a study conducted by Patricia McConnell at Walden University (2010), 97% (N=157) of EAT participants reported that it was very beneficial in treating their mental health issues.

I have frequently been involved with riding and caring for horses for eleven years. As I worked with horses over the years, I noticed the therapeutic benefits horses offer. Not only did I feel a sense of calmness in their presence, but I also experienced lasting effects after being with them. Horses served as a relaxing break from other stressful aspects of my life, whether I was caring for them or riding them. With time, I became aware of the direct impact horses had on my mental health. My researched understanding of Equine-Assisted Therapy and its benefits for individuals with mental illnesses solidified my confidence that EAT is a viable treatment option for treating people with a variety of mental illnesses.

However, through analyzing a wide variety of sources on EAT, it was found to be an undervalued and unfamiliar therapy for treating mental illness. One factor contributing to this included negative perceptions of

EAT. This finding led to this study's final research question: How do individuals' perceptions toward Equine-Assisted Therapy differ between those who have been exposed to it and those who have not? Exploring this topic of inquiry is vital in establishing reasons as to why EAT is an undervalued and lesser-known therapy option, considering its proven effectiveness in treating mental illness.

Literature Review

Demonstrated Efficacy of Equine-Assisted Therapy

To examine the impact of EAT on veterans with PTSD, a case study by Shay Arnon and Prudence W. Fisher (2020) sought to determine patients' changes in PTSD levels pre- and post-EAT treatment. The study consisted of eight (N=8) veteran participants with clinician-diagnosed PTSD who participated in eight weekly ninety-minute sessions, which consisted of interactions with horses such as grooming, leading the horse with a rope or hand, and directing the horse. To analyze the effects of the study, Fisher and Arnon evaluated pre-treatment, midpoint, post-treatment, and follow-up results of the EAT program by using assessment scales for PTSD symptoms, such as HAM-D (depression scale), CAPS-5 (PTSD scale), PCL-5 (self-reported PTSD scale), BDI (self-reported depression scale), and QLESQ (Quality of Life Enjoyment and Satisfaction Questionnaire). Overall, the assessment scales for PTSD concluded that there was an improvement in PTSD symptoms from pre-treatment to follow-up. Additionally, in the follow-up interviews, all participants reported high satisfaction and wished the program had lasted longer.

Likewise, in a systematic review conducted by David T. Cavagnino and Anjana N. Bha (2018), the effects of EAT on kids with Autism Spectrum Disorder (ASD) were studied. The study method involved reviewing existing case studies. These studies looked at how EAT affected children aged 3 to 15 with Autism Spectrum Disorder (ASD). Similar to the study conducted by Arnon and Fisher, the 15 studies in this review collected data before and after treatment to see how EAT immediately and in the long term affected ASD. The review found that 9 of the 11 studies that assessed social communication skills found improvement in participants' social communication skills following EAT treatment. Out of 7 studies that assessed EAT's effects on behavioral skills, including stereotyped/problem behaviors, affective reactions, impatience and hyperactivity, and overall ability to manage behaviors and emotions, 5 studies found positive effects of EAT. Additionally, 7 of the studies assessed motor skills, and 4 suggested positive effects following EAT. This shows that of the 15 studies analyzed, the majority reported that EAT was successful in improving ASD symptoms.

Pre-Existing Perspectives on Equine-Assisted Therapy

Melanie Woolen (2017), a Student intern in an out-patient mental health clinic in Riverside California, aimed to identify factors that contribute to social workers' willingness to use animals in therapy, specifically EAT. Woolen conducted a quantitative research survey, administered to 168 Bachelor of Social Work (BSW) and Masters of Social Work (MSW) students at a Southern California college to identify their perspectives surrounding EAT. The electronic survey sent to the students consisted of Likert-scale and yes-no responses, such as: I had a pet as a child (Likert-scale), I would be open to the use of animals with my clients (Likert-scale), and I currently own or care for a companion animal (yes-no). Through analyzing quantitative data drawn from survey responses, Woolen found correlations between a number of factors, including having had and/or taken care of a pet in the past, and having a strong affinity for animals. Individuals involved with caring for animals reported having more positive perceptions of EAT compared to those not involved in animal care. While this serves as a factor contributing to varying perceptions of EAT, Woolen acknowledges that her study did not explore other potential factors that might influence negative perceptions of EAT.

Similar to Wollen's study, P. Stapleton and K.T. Grimmet (2021), researchers at Bond University's School of Psychology, evaluated Australian health professionals' perceptions of EAT. However, Stapleton and Grimmet diversified their study by focusing on different participants' perceptions based on regional differences. The researchers distributed an online questionnaire to do so, which yielded 184 participants. Alongside demographic inquiries asked in the questionnaire regarding health professions' residential situations (rural or metropolitan), the study also utilized the Behavior Intervention Rating Scale (BIRS). This 24-item instrument gauges participants' perceptions of treatment acceptability and effectiveness. Responses on the BIRS were rated on a 5-point Likert scale, with higher scores indicating greater treatment acceptability of EAT. Data collected on residential situations and BIRS responses were cross-analyzed to determine connections between perceptions of EAT and regional differences. The research indicated that location was significant factor influencing health professionals' attitudes toward EAT, with urban participants having poorer perceptions of EAT, and rural participants having a more positive perception of EAT.

Comparable Approach

In a case study conducted by Sarah Fuller-Lovins (2022), a student at The Graduate College of Missouri State University, a quasi-experiment (a study used to evaluate the pre and post-analysis of an intervention) was conducted to identify changes in social and psychological results following EAT treatment for young people referred to the program by doctors, counselors, or case workers due to exposure to trauma, poor peer relationships, low self-esteem, and behavioral issues. A youth group, consisting of 560 participants aged 5-17, was assessed before EAT, and the same groups were accessed after treatment to evaluate effectiveness. The study utilized the Horses Assisting Youth-Staff Assessment (HAY-S) and Parent Assessment (HAY-P), which assessed a child's confidence, happiness, focus, anxiety, respect for authority, obsessive behavior, physical aggression, and socialization/communication skills with peers and adults. The changes in HAY-S and HAY-P data changed significantly from pre- to post-EAT intervention. Factors such as contentment, communication, compliance, and focus had the most significant improvement following treatment. Overall, the differentiation between their behavioral scales pre- and post-treatment proved EAT to be a viable treatment option for youth populations with behavioral issues.

Similar to the approach used by Fuller-Lovins, Andrés García-Gómez, Faculty of Teacher Training at the University of Extremadura (2016), also conducted a quasi-experiment to investigate how an EAT program impacts the quality of life and different psychosocial factors for 14 children aged 7-14 diagnosed with attention-deficit/hyperactivity disorder (ADHD). A pre-and post-test analysis was performed to assess the effects of the EAT program. Prior to beginning the program and after completing 24 biweekly sessions, participants completed the Behavior Assessment System for Children (BASC) and an ad-hoc quality of life questionnaire. The BASC, which consisted of five rating forms, was employed to track changes in the emotional and behavioral status of the children following their exposure to EAT. Furthermore, the ad-hoc quality of life questionnaire was used to evaluate participant feedback regarding their engagement in the EAT program. After the 24 bi-weekly sessions, the study found an improvement in interpersonal relationships in the quality-of-life questionnaire, as well as improvements in participants' BASC responses. Both Fuller-Lovins and García-Gómez utilized a quasi-experiment to evaluate the effectiveness of EAT, and both of their focuses were primarily on children.

Gaps in Existing Literature

After reviewing numerous sources that assess the effectiveness of EAT and perceptions toward EAT, a research gap becomes apparent regarding the distinct differences in perceptions of EAT between individuals who have experienced it and those who have not. Studies such as Woolen's (2017) and Grimmet's (2021) case studies

primarily focus on the perceptions of social workers and health professionals, demonstrating effectiveness in identifying perceptions among individuals knowledgeable about EAT but lacking a broader focus on the general population's perceptions. Additionally, these studies concentrate on older and more educated individuals' perceptions, neglecting the perspectives of youth. This research paper aims to address these gaps by focusing on a sample that includes youth participants who are likely unfamiliar with EAT. Furthermore, while Fuller-Lovins (2022) and García-Gómez (2016) conducted studies proving the effectiveness of EAT on children using a quasi-experimental design, there is no existing literature utilizing a quasi-experimental design to assess perceptions of EAT. Building on the demonstrated effectiveness of EAT, as highlighted by Fisher (2020) and Cavagnino (2018), this research paper seeks to identify factors contributing to negative perceptions of EAT by comparing the perceptions of youth groups unexposed to EAT with those who have experienced the therapy.

Methods

Hypotheses & Introduction

To guide the research in alliance with the gaps identified, 3 hypotheses were utilized:

1. Participants not exposed to EAT will have a better understanding of it after learning about its effectiveness.
2. Participants frequently exposed to working with horses will say they have experienced effects that are comparable to those offered by EAT programs.
3. Participants frequently exposed to working with horses will have more positive perceptions of EAT than those who have not been exposed.

The first hypothesis was constructed by recognizing EAT as a lesser-known and undervalued psychotherapy. Individuals who have not encountered EAT or are not engaged in horse care are likely to possess minimal or no knowledge about this form of therapy. Given that lack of awareness is a primary reason for EAT's obscurity, it was hypothesized that upon encountering information about EAT, participants would become more knowledgeable about EAT. The second hypothesis could be supported by acknowledging that popular EAT activities include riding, leading, and grooming horses. Individuals who work with horses are likely to engage in these activities regularly. Because of this, it is plausible to hypothesize that individuals who frequently interact with horses will experience positive effects on their mental health, similar to what EAT participants experience. Finally, the third hypothesis was posed due to the differing levels of exposure between the two participant groups. Individuals who are exposed to horses are more likely to have positive perceptions of this therapy, as indicated by previous studies, such as Patricia McConnell's (2010), which reported high patient satisfaction with EAT. In contrast, individuals who have not experienced EAT are likely to have more negative perceptions of the therapy. This difference is attributed to firsthand experience of EAT.

To test these hypotheses, this research project utilized a two-pronged, mixed-methodology correlational research method: 1) a mixed quantitative/qualitative Google Form survey of high school students employing a quasi-experimental design to identify changes in perceptions of EAT after an informational pamphlet, and 2) a series of interviews with people involved in horse care to compare their perceptions of EAT to perceptions analyzed in the Google Form.

Survey Method

Population & Sample Selection

The target population for the quasi-experimental survey was the general population of high school students in grades 9 through 12. Therefore, the researcher used simple random sampling to collect data. The selection of high-school students is similar to the population analyzed by Fuller-Lovin's (2022) and García-Gómez's (2016) quasi-experimental case study, where they both analyze EAT's effects on children. However, this study further addresses the gap regarding perceptions of youth groups, contrasting with Woolen's (2017) and Grimmett's (2021) studies, which analyze perceptions of older participants. To best obtain data from a youth sample, the survey was conducted at Calabasas High School, a large, high-achieving public school located in a suburban area with approximately 2,000 students. The student body is predominantly White (78.5%), followed by Latino (9%), Asian (5.5%), and African American (5%) students. The school's socioeconomic status is characterized by a high-income level, with only 10.6% of students enrolled in the Free-Reduced Lunch program. Calabasas High School is a co-educational institution serving students in grades 9 through 12.

Implementation

To gather data from a broad sample of Calabasas High School's population, the researcher contacted English teachers via email and asked them to share the survey on Google Classroom for student access. This method was selected because all students at Calabasas High School are required to take an English class each year, ensuring a more inclusive reach of the survey across the student population to help minimize bias associated with grade-based classes. Additionally, the researcher visited several English classrooms to explain the survey and encourage student participation. The survey was constructed using Google Forms, which is a free survey administration software to take and create surveys. Data was collected over a 2-week period.

Instruments

The survey was created following the completion of the first part of this method (Appendix D). The survey consisted of qualitative and quantitative questions, with a mixture of Likert-scale, yes-no, and free responses. In the middle of the survey, an informational pamphlet that was created by the researcher using Canva (a free online graphic-design tool) was presented to participants. The pamphlet contained an explanation of EAT, and an example of its effectiveness sampled from Julie L Earle's (2015) case study. The survey continued after the informational pamphlet, which contained questions that aimed to analyze the effects the informational pamphlet had on participants' perceptions of EAT. Three Likert-scale questions were sampled from Melanie Woolen's (2017) case study, which aimed to identify participants' familiarity with EAT and their perceptions of it. This was chosen in order to draw comparisons between the responses in Woolen's study and this study. Each participant was provided with a digital Informed Consent Form (Appendix A), which they were asked to sign electronically before completing the following Google Forms questionnaire:

Table 1. Instrument Table with Citation.

Question	Response Style	Source
Demographics		



1. Please select your grade.	9th, 10th, 11th, 12th	Self-Identified
2. What is your race/ethnicity?	Hispanic, Latinx, or Spanish Origin, Black or African American, Asian, Native American or Alaskan Native, Hawaiian Native or other Pacific, White, Other: ____	Self-Identified
3. Please select your gender identity.	Male, Female, Prefer not to say	Self-Identified

Initial Data Collection (Pre-Test)

4. On a scale of 1 to 5, how familiar are you with the concept of Equine Therapy?	Completely unfamiliar with the topic (1) - Very knowledgeable (5)	Melanie Woolen (2017)
5. Have you ever encountered information or discussions about equine therapy in the past?	Yes, No	Self-Identified
6. Do you believe a connection with horses might aid in a therapeutic process?	Yes, No	Melanie Woolen (2017)
7. Describe your initial thoughts or feelings about the idea of therapy involving interactions with horses.	Free Response	Self-Identified

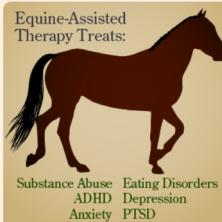
Informational Pamphlet

◆ What is
Equine Therapy? ◆

- Equine therapy utilizes interactions with horses to promote emotional growth and healing in individuals.
- Individuals engage in several activities with the horses, including grooming, leading, and interacting with horses under the guidance of a therapist.

Case Study Example:

“Participants engaged in tasks with horses for 6 weekly 2-hour sessions. Immediately following the final session, participants reported significantly reduced posttraumatic stress symptoms” (Earle 2015).



Continued Data Collection (Post-Test)

1. On a scale of 1 to 5, how much did the provided information better your understanding of what Equine Therapy is?	Completely unfamiliar with the topic (1) - Very knowledgeable (5)	Self-Identified
2. What specific aspects or benefits of Equine Therapy were most surprising or impactful to you upon learning about its effectiveness?	Free response	Self-Identified
3. Equine Therapy is an effective way to combat mental health issues.	Yes, No	Melanie Woolen (2017)
4. How comfortable would you feel participating in Equine Therapy sessions?	Extremely uncomfortable (1) - Extremely comfortable (5)	Self-Identified
5. Would you be open to trying Equine Therapy in the future?	Yes, No	Self-Identified

Data Analysis System

After the two week period, there were eighty survey respondents. The resulting demographics are as follows: 11.3% 9th graders, 33.8% 10th graders, 36.3% 11th graders, 18.8% 12th graders, 75% White, 16.3% Hispanic or Spanish Origin, 6.3% African American, 6.3% Asian, 3.8% Persian, 5.54% other race/ethnicity, 56.3% male, 41.3% female, and 1.3% prefer not to state gender. Responses were compiled on a Google Sheet via an automatic transfer feature included in the Google Form application. From there, sub-spreadsheets were created to further separate survey sections. For example, each section of the survey was separated, with demographic information, pre-test, and post-test each compiled on an individual spreadsheet. Additionally, qualitative data and quantitative data were separated on each sub-spreadsheet. Histograms were created to analyze respondents' perceptions and knowledge about EAT, and t-tests for dependent means were conducted to analyze any changes in respondents' perceptions after being shown the informational pamphlet, and to draw correlations between demographics. Additionally, qualitative responses from the survey were analyzed through the use of an online word counter, which was used to generate a word cloud.

Interview Method

Population & Sample Selection

The participants of the interview segment consisted of three individuals actively engaged in horse care for at least nine years. The researcher contacted them via text message, where all three agreed to an interview. An in-person meeting at their equestrian facility located in Malibu, California was arranged. This sample was chosen because Malibu is close to Calabasas High School, so bias associated with geographic location was avoided when comparing responses. However, there may be a slight bias in responses since the researcher has a personal relationship with the interviewees.

Instruments

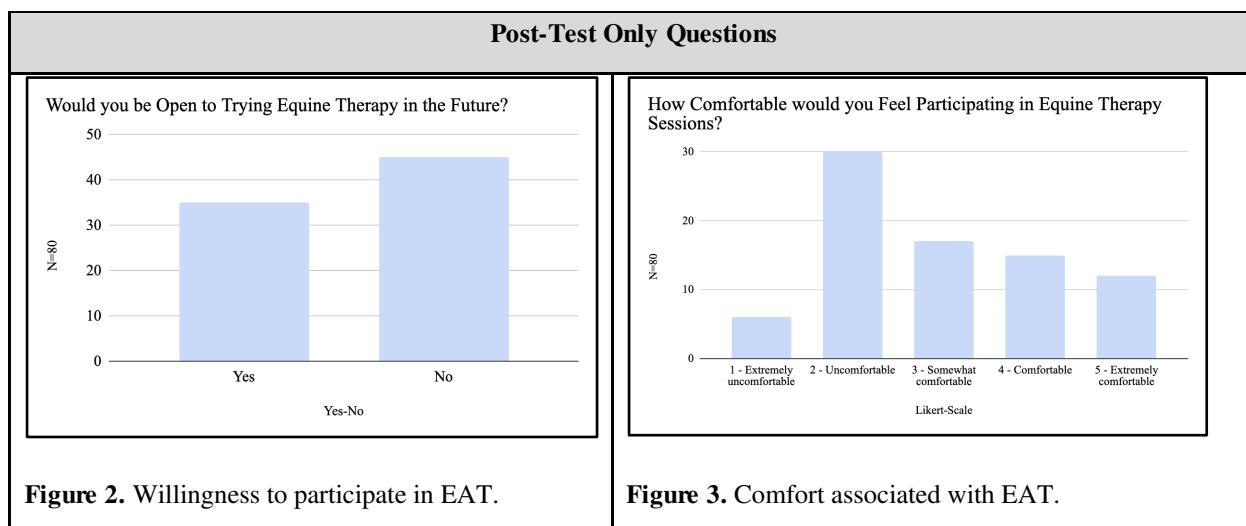
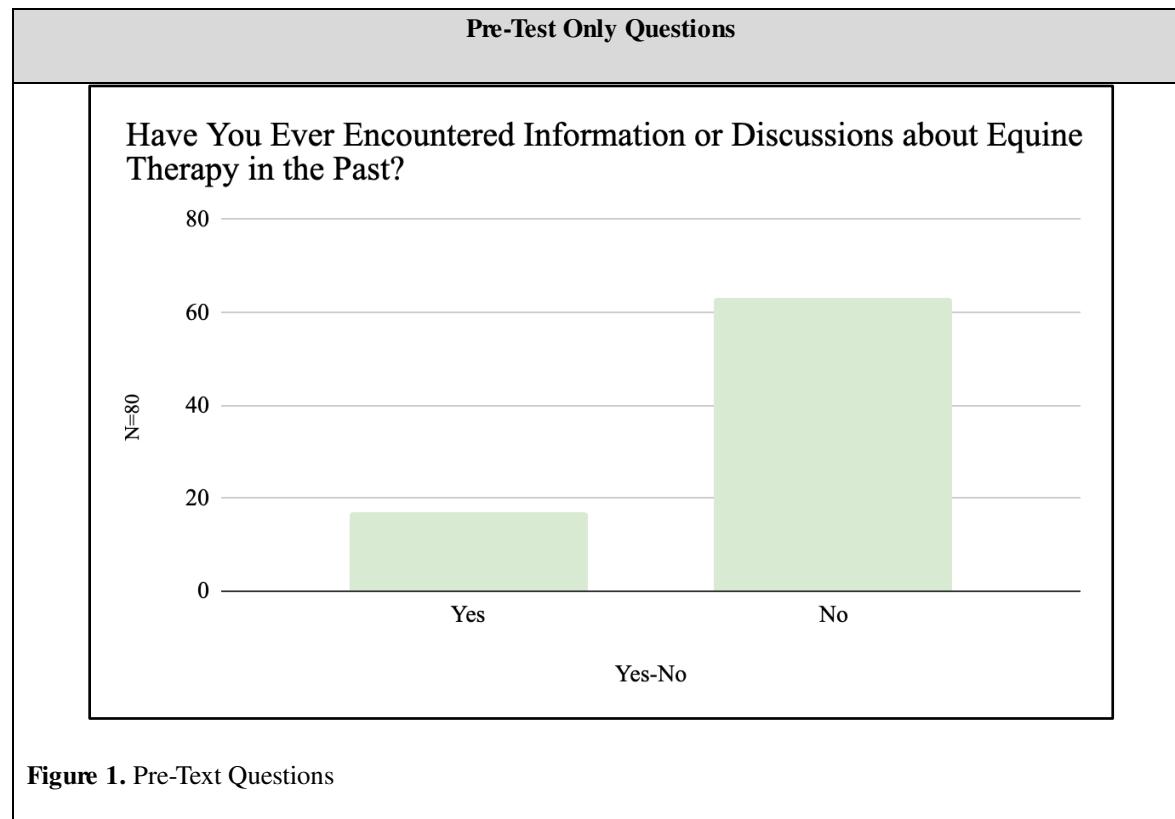
Prior to beginning the interview, the researcher presented each participant with a printed Informed Consent Form (Appendix B). The researcher then conducted the interviews with pre-planned interview questions (Appendix C) and recorded the interviews with a mobile phone. After the interview was completed, the conversation was then transcribed (Appendix E) to an online Google Doc by the researcher to analyze qualitative data.

Implementation

The researcher asked six interview questions to analyze participants' personal experiences with horses and their perceptions of EAT. Questions asked in the interviews aimed to identify the following: 1) personal experiences with EAT, 2) perceptions of EAT, and 3) participants' thoughts on how to improve negative perceptions of EAT. The duration of each interview was anywhere from four minutes to six minutes, depending on the length of each interviewee's responses. Collecting this data is important for comparing interview responses with survey responses to identify differences in perceptions, which addresses the research question.

Findings - Survey

Histograms & Word Clouds



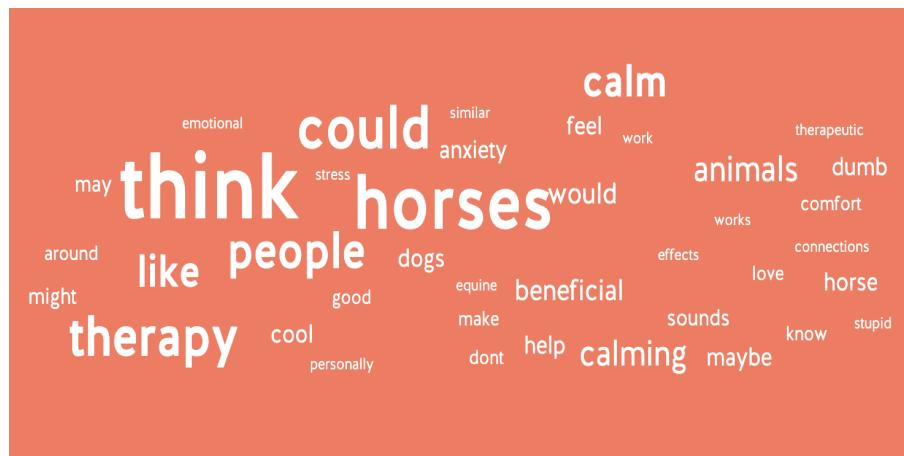
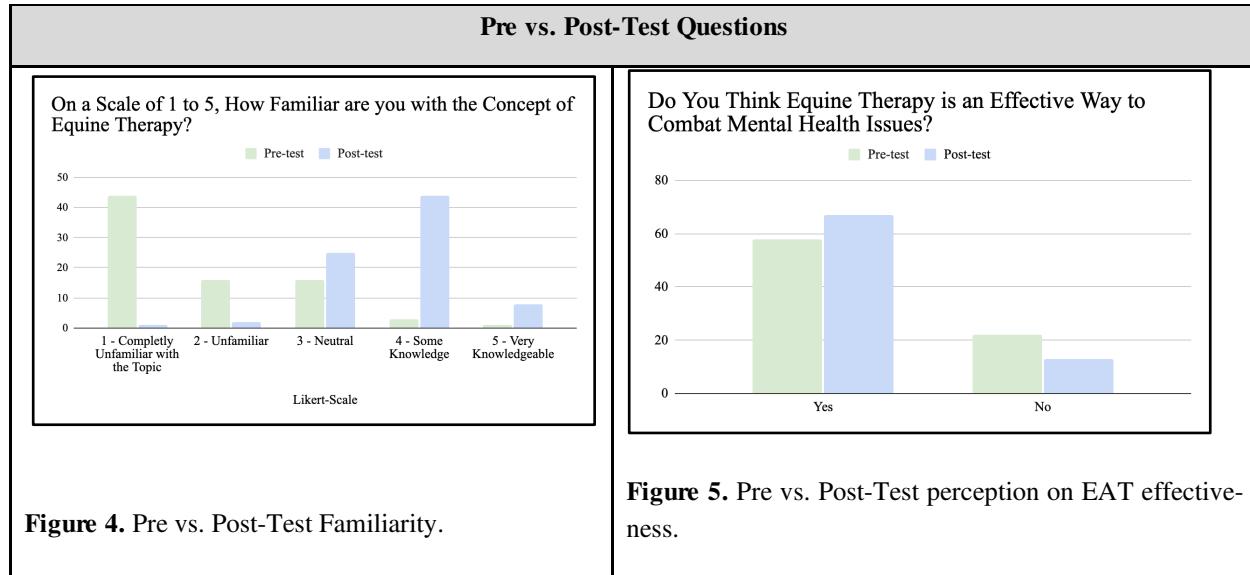


Figure 6. Pre-Test Perceptions of EAT: Qualitative.



Figure 7. Post-Test Perceptions of EAT: Qualitative.

T-Test for Dependant Means: Pre- and Post-Test & Subpopulation Findings

Table 2. Pre- vs. Post-Test Correlations.

Pre- vs. Post-Test Correlations		
Question	t-value	p-value (Coorelational)
On a scale of 1 to 5, how familiar are you with the concept of Equine Therapy?	15.350145	< .00001*
Do you think Equine Therapy is an effective way to combat mental health issues?	1.633206	.10641
*indicates results are statistically significant, p < .05		

Table 3. Upper vs. Lower Classmen Correlations.

Subpopulations - Upper vs. Lower Classmen Correlations		
Question	t-value	p-value (correlational)
On a scale of 1 to 5, how familiar are you with the concept of Equine Therapy? (Underclassmen v. Upperclassmen)	0.99287	.16205
Equine Therapy is an effective way to combat mental health issues. (Underclassmen v. Upperclassmen)	-0.32264	.373946
How comfortable would you feel participating in Equine Therapy sessions? (Underclassmen v. Upperclassmen)	0	.5
On a scale of 1 to 5, how much did the provided information better your understanding of what Equine Therapy is? (Underclassmen v. Upperclassmen)	-0.39806	.345883
Would you be open to trying		

Equine Therapy in the future? (Underclassmen v. Upperclassmen)	-.286555	.13557
Have you ever encountered information or discussions about equine therapy in the past? (Underclassmen v. Upperclassmen)	-.16483	.24366
Do you believe a connection with horses might aid in a therapeutic process? (Underclassmen v. Upperclassmen)	-.362216	.13244
On a scale of 1 to 5, how much did the provided information better your understanding of what Equine Therapy is? (Underclassmen v. Upperclassmen)	-.109887	.16754
*indicates results are statistically significant, p < .05		

Table 4. Female vs. Male Correlations.

Subpopulations - Female versus Lower Male Correlations		
Question	t-value	p-value (Correlational)
Equine Therapy is an effective way to combat mental health issues (Females v. Males)	0	0.5
Do you believe a connection with horses might aid in a therapeutic process? (Females v. Males)	-0.722315	0.23767
On a scale of 1 to 5, how familiar are you with the concept of Equine Therapy? (Females v. Males)	-2.766256	0.00467*
Would you be open to trying Equine Therapy in the future? (Females v. Males)	-1.644453	0.05494
How comfortable would you feel participating in Equine Therapy sessions? (Females v. Males)	-1.071439	0.14599
Have you ever encountered information or discussions about equine therapy in the past? (Females v. Males)	-2.729153	.01023
On a scale of 1 to 5, how much did the		

provided information better your understanding of what Equine Therapy is? (Females v. Males)	-1.68462	.01224
*indicates results are statistically significant, $p < .05$		

Analysis - Survey

The data that resulted from the survey was analyzed to determine participants' perceptions of EAT. Survey analysis was broken down into two sections: 1) familiarity with EAT, and 2) perceptions of EAT.

Familiarity with EAT

Before the informational pamphlet was shown, 79% (N=63) stated that they have not encountered information or discussions about Equine Therapy in the past (Fig 1). Additionally, 75% (N=60) of respondents stated that they were either unfamiliar or completely unfamiliar with the concept of Equine Therapy (Fig 4). In Melanie Woolen's (2017) study, 70% of social workers were familiar with Equine Therapy, with only 30% being unfamiliar. The responses to the same question in this study and in Woolen's study reveal a difference in familiarity with EAT between social workers and high-school students. This difference can be attributed to the fact that social workers are knowledgeable about different therapy methods since they serve in treating mental illness, so they are likely to have knowledge about EAT. Since high-schooler students don't have the same expertise as social workers, they are less familiar with EAT. Moreover, in a correlational t-test for dependent means, it was found that females are more familiar with the concept of Equine Therapy than males, with the p-value of the correlation calculation being $p=0.00467$, which indicates a strong correlation (Table 4). The researcher utilized a t-test for dependent means because they hypothesized gender will influence familiarity with EAT. This correlation may be attributed to females being more commonly exposed to horses because more horseback riders are females. Despite the exception of females' stronger initial familiarity with EAT, additional t-tests concluded that there were no significant correlations between gender or grade for post-test responses (Tables 3 & 4). Overall, the responses of the pre-test section of the survey and comparison to Woolen's study conclude that high-school students have very little prior knowledge of EAT, which could be due to a lack of expertise in therapy methods. It was also concluded that females have more initial knowledge of EAT than males.

After the informational pamphlet was shown, there was an apparent change in participants' knowledge of EAT. 65% (N=52) of respondents reported that they were now familiar with the concept of Equine Therapy after being shown the pamphlet (Fig 4). This contrasts with pre-test responses, where only 5% (N=4) of respondents were familiar with the concept of Equine Therapy (Fig 4). This disparity shows that the informational pamphlet was successful in improving participant's knowledge of EAT. Additionally, a correlational t-test further showed that there was a strong correlation between pre-and post-test responses for familiarity with EAT, with a significant p-value of $p < .00001$ (Table 2). Overall, these findings seem to support hypothesis #1: Participants not exposed to EAT will have an improved understanding of what it is after being shown an informational pamphlet.

Perceptions of EAT

To further draw connections between data, initial perceptions of EAT were analyzed. When asked if a connection with horses might be an effective way to combat mental health issues, 72% (N=59) of respondents said "Yes" (Fig 5). This shows that participants believe EAT is effective, even though the majority of participants

were initially unfamiliar with EAT. In Melanie Woolen's (2017) study, 99.1% of social workers agreed that a connection with horses would be effective in combating mental health issues. When compared to the results from this study, it can be concluded that both high-school students and social workers believe EAT is effective. Additionally, when students were asked to describe their initial thoughts about the idea of a therapy involving interactions with horses, frequently used words were beneficial, calm, dumb, cool, and anxiety (Fig 6). With each word used at least 6 times, it shows that there was a mixture of positive and negative perceptions, however, there were more positive responses. Overall, participants believe that utilizing horses in therapy would be effective.

After the informational pamphlet was shown, participants' perceptions of EAT were analyzed again. When asked if Equine Therapy is an effective way to combat mental health issues, 84% (N=67) of participants said "Yes" (Fig 5). In comparison to responses to this question before the pamphlet, there was a 12% increase in "Yes" responses in the post-test. Even though participants believed utilizing horses in therapy could be beneficial in the pre-test, they were even more confident in EAT's effectiveness after the pamphlet. However, despite participants' belief that EAT is effective, 56% (N=45) of participants said they would not be open to trying Equine Therapy in the future, and the most common response when asked how comfortable they would feel participating in Equine Therapy sessions was "Uncomfortable" (Fig 2 & 3). The reluctance to participate in EAT and participants' low level of comfort associated with the therapy indicates a negative perception of EAT. When comparing participants' opinions on EAT's effectiveness to their personal opinions on the therapy, there is a significant disparity. Despite participants believing that EAT is effective, they hold a negative perception of the therapy. This disparity may be attributed to a lack of exposure to horses.

Findings & Analysis - Interviews

Once interviews were transcribed onto a Google Doc (Appendix E), they were analyzed by the researcher to draw connections across responses. The interview analysis was broken down into three sections: 1) personal experiences with EAT, 2) perceptions of EAT, and 3) improving negative perceptions of EAT.

Personal Experiences with EAT

Of the three interviewees, all reported a positive experience with EAT. Indicators of a positive experience included responses such as "I find it super relaxing" (Interviewee #1), "I can feel the love from horses just being at the barn" (Interviewee #2), and "I think it's really helped me grow as a person" (Interviewee #3). Comments as such indicate that horses have positively impacted their mental health because they are exposed to EAT. This finding aligns with David T. Cavagnino and Anjana N. Bha's (2018) study, where EAT participants self-reported feeling calmer and satisfied after treatment. Additionally, these findings appear to support hypothesis #2: Participants frequently exposed to working with horses will say they have experienced effects that are comparable to those offered by EAT programs. However, because the researcher only interviewed three individuals, only softer conclusions can be drawn.

Perceptions of EAT

In addition to positive experiences with EAT, all 3 interviewees believe that EAT is effective in treating mental illness. Indicators of this include responses such as, "people with clinically diagnosed mental illnesses could benefit from Equine Therapy because I know it personally has affected me" (Interviewee #2), "depression is something that I think Equine Therapy can help, especially since I was depressed and it just turned my life around" (Interviewee #3), and "I find it super relaxing. I can only imagine the effects it has for people with

anxiety" (Interviewee #1). These similar responses indicate that all interviewees have positive perceptions of EAT, which is supported by their explanations that they had beneficial experiences with it.

Improving Negative Perceptions of EAT

After analyzing participants' experiences with EAT and perceptions of EAT, they were asked questions to find out their thoughts on why some people might have negative perceptions of EAT and how those perceptions could be changed for the better. Responses such as "people just don't understand the feeling I explained without having experienced it" (Interviewee #1), "the backbone of the issue is that not enough people are exposed to horses" (Interviewee #2), and "I think people would be reluctant to try it, probably because they haven't been exposed to horses" (Interviewee #3) show that all interviewees associate negative perceptions of EAT with lack of exposure to it. When asked how to improve negative perceptions, common responses were "I think that spending time with a horse can open their eyes" (Interviewee #1), "improving accessibility would really help improve negative perceptions" (Interviewee #2), and "just exposing people, the people who have access to horses, is how you would improve negative perceptions" (Interviewee #3). All responses were closely aligned with each other, and all responses indicate that improving access to foster exposure to horses will improve negative perceptions of EAT. Overall, this concludes that lack of exposure to horses is a possible cause of negative perceptions of EAT, and improving exposure will result in more positive perceptions.

Conclusion

Overall Analysis

After completing a comprehensive analysis of survey and interview responses, connections across participant groups can be drawn. By analyzing survey responses, it was concluded that high-school students not exposed to EAT hold a negative perception of it, despite having an understanding of its effectiveness. These negative perceptions were attributed to a lack of exposure to horses. In contrast, people involved in horse care who are exposed to EAT tend to have a positive perception of EAT. They believe that the negative perceptions of EAT stem from a lack of exposure to horses. When participant groups are compared, people not exposed to EAT hold a negative perception of EAT, while people who are exposed hold a positive perception. This finding aligns with hypothesis #3: Participants frequently exposed to working with horses will have more positive perceptions of EAT than those who have not been exposed. Additionally, this study successfully addressed gaps in the literature regarding youth perceptions of EAT and comparing perceptions of EAT across groups with differing levels of exposure. Addressing youth perceptions was accomplished by focusing on a high school for a sample population, and addressing perceptions of differing exposure levels was accomplished by comparing perceptions of a high school's general population with individuals actively involved in horse care. Moreover, all three hypotheses were addressed in the survey, interview, and overall analysis, where they were supported by findings.

Limitations

Despite this study's success in addressing research questions and gaps, there are some limitations. One limitation pertains to the sample size and selection of both participant groups. There were only 80 survey respondents, which doesn't represent an inclusive sample of Calabasas High School's population, which is approximately 2,000 students. Additionally, data collected in the interviews is primarily qualitative and highly dependent on the experiences and beliefs of 3 people involved in horse care. This means that the data can have a slight bias.

Future research should work to collect more reliable qualitative and quantitative data, for instance, by analyzing multiple high schools and a wider variety of people involved with horse care. Moreover, since data was collected in Calabasas and Malibu, California, there may be bias associated with geographic location. These 2 locations are surrounded by multiple EAT and equestrian facilities, so people who reside in Malibu and Calabasas have easy access to EAT. The data collected was limited to a suburban population, which excludes the representation of individuals residing in more urban areas who may not have access to horses. Future research should focus on a more expansive geographic area, such as the population analyzed in P. Stapleton and K.T. Grimmet's (2021) case study, which focused on perceptions of EAT based on regional differences in Australia.

Implications

Given EAT's obscurity and undervalued status as a therapy intervention, this study offers reasoning for this. Data shown in the survey and responses of interviewees suggests that lack of exposure to EAT is what contributes to negative perceptions of it, which may result in EAT's obscurity. However, it is important to note that not everyone has access to EAT, making exposure to it unattainable for some. This is especially true for individuals who reside in more urban areas such as cities. Due to the inherent geographical challenges that limit access to EAT, efforts should be made to improve accessibility of EAT for those who aren't geographically limited. One way of achieving this could be by reducing the cost of EAT. For example, non-profit organizations should consider methods for making the cost of EAT more manageable, and therefore more accessible. To do so, further research should investigate insurance companies' policies on EAT coverage and explore potential collaborations with non-profit organizations to improve these policies. This paper can serve as a foundation for such efforts.

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