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**NAVAL
POSTGRADUATE
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MONTEREY, CALIFORNIA

THESIS

**A DESCRIPTIVE ACCOUNT OF MUSTANG HORSE
THERAPY**

by

Joshua A. Herrington

March 2022

Thesis Advisor:

Second Reader:

Shannon C. Houck

Kalev I. Sepp

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A DESCRIPTIVE ACCOUNT OF MUSTANG HORSE THERAPY

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Major, United States Army
BS, Texas Christian University, 2010

Submitted in partial fulfillment of the
requirements for the degree of

**MASTER OF SCIENCE IN INFORMATION STRATEGY AND POLITICAL
WARFARE**

from the

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ABSTRACT

This thesis provides military commands, leaders, and medical professionals an in-depth description of a present-day mustang horse therapy program tailored to service members. Little is known of the efficacy of mustang therapy for military members nor is there an established baseline description of what mustang therapy for service members entails. By describing the design and objectives of the American Mustang School in Aberdeen, North Carolina, military commands, leaders, and medical professionals are informed of an innovative means to invest in its greatest commodity: its people. This thesis also discusses possible avenues of future research for mustang therapy.

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EXECUTIVE SUMMARY

This thesis provides military commands, leaders, and medical professionals a detailed description of mustang horse therapy at the American Mustang School in Aberdeen, North Carolina. Currently, there is lack of research on mustang therapy for the physical and psychological benefits for military service members. To help fill this gap, this thesis provides an in-depth illustration of the design and process used by the Equine Assist Services (EAS) and Equine Assist Learning (EAL) accredited American Mustang School.¹ Though mustang therapy may seem similar to equine therapy, the mustang horse itself brings a new element to the therapy because of the mustang's sensitive nature from living in the wild and commonalities to humans who have experienced pain and trauma.² The rationale for selecting the American Mustang School therapeutic horsemanship design for this research was due to its proximity to Fort Bragg, North Carolina, ongoing participation by military personnel, and support by military behavioral psychologists. The American Mustang School's goal is to enhance and reintegrate the individuals to themselves, their relationships, and the world around them. The American Mustang School's design consist of five levels.

Level I: Handling and Conditioning/Establishing Communication—The participant halts their mustang partner and conducts grooming for mindset, which introduces the participant to “two pathways of communication,” and the five-part series, which teaches the participant to communicate to the mustang appropriately, learn to self-reflect, and to understand success and failure in completing each task in the series.

Level II: Leadership and Relationship—The participant learns “servitude leadership” through successfully navigating four challenging obstacles and creating a willing partner of the mustang.

¹ Justin Dunn, “Horse Therapy American Mustang School United States,” American Mustang School, accessed February 16, 2022, <https://www.justindunnhorsemanship.com>.

² Andrea London, “Horses and Human Trauma Survivors Help Each Other Heal,” *The Plaid Horse Magazine*, January 29, 2021, <https://www.theplaidhorse.com/2021/01/29/horse-andhuman-trauma-survivors-help-each-other-heal/>.

Level III: Transfer from Ground to Saddle—The participant learns to properly saddle the mustang and lateral flexion, which provides a ground tie for the mustang, promotes communication through the reins, and covers reign control. Additionally, the participant completes a new five-part series in the saddle consisting of turning the mustang left and right, moving the mustang forward and backward, and stopping.

Level IV: Focused Riding—The participant and the mustang must overcome unique riding obstacles around the American Mustang School. Once the individual and the mustang can complete all obstacles with clear focus and tranquility, the duo moves to the final level.

Level V: Riding in True—The participant and the mustang interact with variables outside the confines of the American Mustang School. The goal of Level V is to apply two pathways of communication, servitude leadership, focus, and trust of the pair in the mustang's environment.³

This thesis provides important groundwork for future research to build upon. For example, future research is needed to empirically examine the efficacy of mustang therapy for military personnel. One potential line of effort is conducting an experiment at the American Mustang School to test the effectiveness of its therapy by collecting pre- and post-measures, including clinical evaluations, self-reporting, and physiological data connected to stress and well-being. Another line of effort is determining the advantages and disadvantages of mustang therapy to current therapies available to service members.

³ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

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I. INTRODUCTION

This thesis provides military commands, leaders, and medical professionals with a detailed description of mustang therapy and its potential physical and psychological benefits for military service members. Currently, there is a lack of research and documentation of mustang therapy for military personnel. This thesis provides an in-depth look at the therapeutic design offered at the American Mustang School in Aberdeen, North Carolina.

A. BACKGROUND

1. Mustangs for Therapy

According to Mr. Justin Dunn, director of the American Mustang School, “the unique characteristics of mustangs and their similarities to service members forge a sound partnership between the pairs during therapy.”¹ Mustangs are comforting, calm animals who are direct in their exchanges without deceiving or manipulating.² Though mustangs cannot communicate through spoken words, they can respond through non-verbal cues such as avoidance, posturing, and affection.³ Similar to some humans, says author Jess McHugh, mustang horses have suffered from physical and psychological traumas.⁴ They lived free in the wild, but then were rounded up and captured by the Bureau of Land

¹ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

² Justin Dunn, “Horse Therapy American Mustang School United States,” American Mustang School, accessed February 16, 2022, <https://www.justindunnhorsemanship.com>.

³ Tim Hayes, *Riding Home: The Power of Horses to Heal*, First edition (New York: St. Martin’s Press, 2015), 40.

⁴ Jess McHugh, “‘I Wouldn’t Be Alive without It’: Wild Mustangs and Veterans Find Healing Together,” *The Guardian*, August 9, 2019, sec. World news, <https://www.theguardian.com/world/2021/aug/09/wild-mustangs-veterans-healing-together>.

Management.⁵ Mustangs' innate desire to be "free" is different from the average domesticated horse, the mustang's distant cousin.⁶ The domesticated horse may appear identical to a mustang, but many of their behavioral tendencies are different because of humankind's selective breeding over time.⁷ Humans have provided domesticated horses with safeguards of shelter and sustenance, evolving the horse to be compliant and reliant on them over the centuries.⁸ In an article written by author William E. Simpson, he states that "the will and spirit of a wild horse to live free is radically different than that of most domestic horses and that 'will' or 'spirit' is an absolute necessity for the wild horse to survive in the wilds, where many domestic breeds would perish quickly."⁹ Thus, mustangs' awareness and ability to learn has not atrophied like the domesticated horse, and these abilities make them gifted therapeutic partners.¹⁰ Dunn says, "every sense of a mustang is fine-tuned to pick up on any stimulus, no matter how small: a person's shortness of breath, muscle tension, or irregularities in their stride."¹¹ Also, some military members returning from war share the same uneasiness or struggles a mustang endures joining a foreign

⁵ "Reality of Roundups," American Wild Horse Campaign, accessed March 7, 2022, <https://americanwildhorsecampaign.org/reality-roundups-1>.

⁶ James D. Feist and Dale R. McCullough, "Behavior Patterns and Communication in Feral Horses," *Zeitschrift Für Tierpsychologie* 41, no. 4 (April 26, 2010): 337–71, <https://doi.org/10.1111/j.1439-0310.1976.tb00947.x>.

⁷ Pablo Librado et al., "The Evolutionary Origin and Genetic Makeup of Domestic Horses," *Genetics* 204, no. 2 (October 7, 2016): 423–34, <https://doi.org/10.1534/genetics.116.194860>.

⁸ Librado et al., "The Evolutionary Origin and Genetic Makeup of Domestic Horses."

⁹ William E. Simpson, "'The Mustang': Movie Sheds Light on Equine Therapy and Wild Horses," *Horsetalk.Co.Nz* (blog), March 26, 2019, <https://www.horsetalk.co.nz/2019/03/27/mustang-movie-equine-therapy-wild-horses/>.

¹⁰ Lisa McKenna, "A Comparison of Learning Behavior between Wild Type Horses (*Equus Przewalski*) and Domesticated Horses (*Equus Caballus*)" (Netherlands, University of Applied Sciences Van Hall Larenstein, 2011), <https://edepot.wur.nl/247999>.

¹¹ Dunn, "Horse Therapy American Mustang School United States."

society and must be reconditioned to cope.¹² “They are both symbols of strength and freedom rounded up and recruited to serve the people of this country with honor and loyalty.”¹³

2. Mustang Therapy Schools

An increasing number of mustang therapy organizations distributed throughout the United States provide treatment to veterans, military, and first responders. The EquiCenter, located in Honeoye Falls, New York, states, “training the horses serves as a kind of therapy, helping veterans rebuild their own confidence, focus and sense of purpose.”¹⁴ Operation Wild Horse, situated in Illinois, is a program of Veterans R&R, providing “a safe community where veterans, active-duty military, and families can build a significant Mustang/human bond that allows barriers to fall, communication to enhance, and trust to form.”¹⁵ Though these programs emulate the same qualities and objectives as the American Mustang School and could be examined through further research, this thesis examines the American Mustang School due to its close proximity to Fort Bragg.

3. The American Mustang School

The American Mustang School was established in 2020 in Aberdeen, North Carolina.¹⁶ The owner and director of the American Mustang School, Justin Dunn, began started his journey of mustang therapeutic horsemanship in the remote mountains of

¹² Susan Malandrino, “Program Allows Veterans and Wild Horses to Rehabilitate Together - Military Health,” *Military Families* (blog), November 23, 2020, <https://militaryfamilies.com/military-health/program-allows-veterans-and-wild-horses-to-rehabilitate-together/>.

¹³ “Wild Horse Warriors,” *Lifesavers* (blog), accessed February 17, 2022, <https://wildhorsesrescue.org/wildhorsewarriors/>.

¹⁴ McHugh, “I Wouldn’t Be Alive without It.”

¹⁵ “Horses and Healing: Operation Wild Horse – American Horse Publications,” August 31, 2021, <https://www.americanhorsepubs.org/newsgroup/29371/25250/>.

¹⁶ Dunn, “Horse Therapy American Mustang School United States.”

Colorado in 2008.¹⁷ With his mustang partner Duke, Dunn began to heal himself of previous traumas through horsemanship. This personal experience led Dunn to formalize a therapeutic approach that serves as the foundation of the American Mustang School design. As Dunn gathered greater knowledge of mustangs and their healing benefits, he adopted additional mustangs to expand and test his therapeutic horsemanship.¹⁸ Shortly thereafter, Dunn and his mustangs provided horsemanship camps for children with cancer and other significant illnesses.¹⁹

Dunn had served as an aircraft structural mechanic for the Navy for eight years (four years active and four years active reserves).²⁰ Throughout his naval career, Dunn witnessed tragic deaths due to suicide, driving Dunn to commit to the development of the American Mustang School.²¹ As a veteran, Dunn felt the desire to utilize his mustangs to heal service members dealing with mental health issues and suicide.²² Dunn packed up his family and mustangs and relocated to Aberdeen, North Carolina, to serve the military population at Fort Bragg and local first responders.²³

4. Credentials of the American Mustang School

The American Mustang School is an Equine Assisted Services (EAS) and Equine Assist Learning (EAL) organization. EAS is “recommended as the optimal and unifying

¹⁷ Dunn, “Horse Therapy American Mustang School United States.”

¹⁸ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

¹⁹ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

²⁰ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

²¹ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

²² Dunn, “Horse Therapy American Mustang School United States.”

²³ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

term to refer to multiple services in which professionals incorporate horses and other equines to benefit people.”²⁴ Figure 1 shows the variations of EAS as they are categorized under therapy, learning, and horsemanship.²⁵

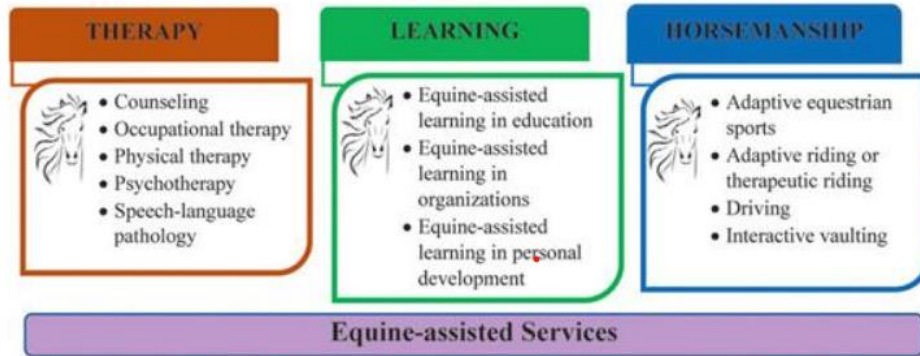


Figure 1. Equine Assisted Services²⁶

The American Mustang School provides EAS for mental health professionals seeking innovative means to develop their services, obtain additional clients, and offer a greater efficacy of care.²⁷ The EAS training at the school focuses on treatment methods for post-traumatic stress disorder (PTSD), depression, anxiety, or suicidal tendencies through improving overall mental health and well-being with horses.²⁸ In addition, the American Mustang School operates with an EAL model. EAL is “an experiential learning approach that promotes the development of life skills for educational, professional and

²⁴ Lissa Pohl, “Adoption of Uniform Terminology Assists in Legitimizing Equine-Assisted Services (EAS) Equine Programs,” accessed February 17, 2022, <https://equine.ca.uky.edu/content/adoption-uniform-terminology-assists-legitimizing-equine-assisted-services-eas>.

²⁵ Pohl, “Adoption of Uniform Terminology Assists in Legitimizing Equine-Assisted Services (EAS) | Equine Programs.”

²⁶ Source: Pohl, “Adoption of Uniform Terminology Assists in Legitimizing Equine-Assisted Services (EAS) Equine Programs.”

²⁷ “Horse Therapy American Mustang School United States.”

²⁸ “Horse Therapy American Mustang School United States.”

personal goals through equine-assisted activities.”²⁹ The collaboration between the mustang and the participant in the EAL model creates moments of growth for participants through self-growth and mindfulness by way of deliberate thinking. EAS organizations are not regulated by state board and are not required to have a degree in the field.³⁰ Though some organizations have specific EAS/EAL certifications for their organization, i.e., PATH International (an independent certification organization), the certifications only tie a program to a certain organization and its membership, as well as its regulations.³¹ The American Mustang School’s lack of association with other certifying organizations allows the school to tailor its therapy to the needs of the participant. Accordingly, “[Dunn] personally developed a unique training method which directly elevated these horses out of a fixed mindset and into a growth mindset, which facilitates a mutually beneficial relationship and willing partner to help others.”³²

5. American Mustang School Staff

At the American Mustang School, Justin Dunn is aided by visiting behavioral psychologists from U.S. Army Special Operations Force units. The number of psychologists can vary from three to five, based on their availability and the needs of the participants. The American Mustang School staff works in tandem. Whereas Dunn focuses on horsemanship, the psychologists provide the therapy. U.S. Special Operations Command has broadened the roles of behavioral psychologists to maintain the combat readiness of its members and promoting overall health and wellbeing by integrating the

²⁹ “Equine Assisted Learning – Healing Hooves Southwest Ranches, FL,” accessed February 17, 2022, <http://www.therapybarn.org/equine-assisted-learning/>.

³⁰ “FAQ About Equine Assisted Psychotherapy and Learning OK Corral,” accessed February 16, 2022, <http://okcorralseries.com/faq>.

³¹ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

³² Dunn, “Horse Therapy American Mustang School United States.”

psychologist at the unit of action.³³ The current psychologists working in concert with Dunn meet the following hiring requirements as described on Lensa, a Special Operations Operational Psychologist for Fort Bragg hiring website.

1. The position requires a Doctorate of Philosophy (PhD) or Doctorate of Psychology (PsyD) from an American Psychology Association accredited college or university with a doctoral degree in clinical or counseling psychology.
2. The Behavioral Psychologist must successfully complete an Internship/Residency in psychology, accredited by the American Psychological Association.
3. Must have a minimum of two (2) years' post-doctoral experience within the past five (5) years in the independent practice of psychology in the area of the operational psychology, preferably in a government setting such as a Department of Defense (DOD) or Intelligence Community (IC).
4. Must meet clinical competency requirements specified in the Service-specific credentialing instructions.
5. The ability to receive and maintain clinical practice privileges.
6. Shall have experience and training in the assessment and treatment of alcohol and substance abuse conditions, domestic violence, child abuse, post-traumatic stress, mood and anxiety conditions, and family/marital issues.
7. Licensure: Current, full, active, and unrestricted license to practice as a psychologist in one of any U.S. State, the District of Columbia, Guam, Puerto Rico or U.S. Virgin Islands.
8. Must maintain credentialing requirements in good standing at local Military Treatment Facility.³⁴

Of the sixty individuals who currently attend the American Mustang School, two-thirds of the participants have been selected by a military behavioral psychologist and brought to the school.³⁵ Those typically selected by a psychologist have experienced a drastic dip in

³³ Paul Dean and Jeffrey McNeil, "Breaking the Stigma Article," accessed February 9, 2021, <https://www.soc.mil/Stigma/BTSA.html>.

³⁴ "Special Operations Operational Psychologist (Fort Bragg, NC) Job in Fayetteville at KBR," Lensa, accessed February 16, 2022, <http://lensa.com/special-operations-operational-psychologist-fort-bragg-nc-jobs/fayetteville/jd/508c78a79e0ca0fe5352389657d3bd3c>.

³⁵ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

productivity and performance, suffered traumatic life events (divorce, death, significant injury, or financial issues), or have volunteered for therapy.³⁶ The other participants who attend the school learned of it via word-of-mouth or visited the school’s website.³⁷ The accompanying psychologist may conduct a session with 1–3 participants for 1–2 hours a week, depending on the needs of the subject and their evaluation.³⁸ To complete the entirety of mustang therapy requires 60 hours of participation.³⁹ Though the school does not currently accept insurance, it is the goal of the school to provide treatment at no cost to the individual.⁴⁰ Benevolent organizations and other donors have paid for individuals to attend the school. Dunn is seeking additional financial backing from military organizations.⁴¹

³⁶ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

³⁷ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

³⁸ Dunn, “Horse Therapy American Mustang School United States.”

³⁹ Dunn, “Horse Therapy American Mustang School United States.”

⁴⁰ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁴¹ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

II. OBJECTIVES AND INITIAL ASSESSMENT

To provide a thorough description of mustang therapy for this thesis, an extensive interview was conducted with Justin Dunn, the owner and director of the American Mustang School, on January 18, 2022, via Microsoft Teams. In addition to the interview, personal observations were made at the American Mustang School in Aberdeen, North Carolina, on October 16, 2021. Currently, there are no studies of mustang therapy in the context of active duty service members; the interview and the observations conducted for this research provide an important foundation of knowledge about this therapeutic approach.

A. THE AMERICAN MUSTANG SCHOOL'S OBJECTIVES

The American Mustang School helps participants develop specific skills and strategies to cope with trauma and stressors commonly found in military service. The first objective of the school is to help people recognize and cope with their feelings. The participant's emotional response towards a mustang, a wild horse, is mirrored by the mustang and presented in kind.⁴² Seeing the mustang's response allows the individual to reflect on their interactions with others and gain a more realistic view of how they display their feelings.⁴³ The next objective is to help individuals improve their communication skills. How the mustang responds to the individual through interaction gives insight into the metaphysical energy the individual may subconsciously or consciously emit.⁴⁴ Dunn states, "they [mustangs] have the innate ability to read a person's inner emotion and understand on a much deeper level what that person needs."⁴⁵ The third therapeutic

⁴² Hayes, *Riding Home*, 83.

⁴³ Janet Jones, "Horse-Human Cooperation Is a Neurobiological Miracle | Aeon Essays," *Aeon*, January 14, 2022, <https://aeon.co/essays/horse-human-cooperation-is-a-neurobiological-miracle>.

⁴⁴ Hayes, *Riding Home*, 105.

⁴⁵ Dunn, "Horse Therapy American Mustang School United States."

objective of mustang therapy is boundary setting. Dunn expresses that a mustang's first instinct is to survive; if the mustang feels threatened or in danger, it will flee or defend itself.⁴⁶ Author Tim Haynes agrees, "at its core, the motivation for every decision a mustang horse makes is determined by what is in its best interest in terms of survival."⁴⁷ A mustang may instantly change its temperament and refuse to comply if the individual disregards the animal's boundaries i.e., brushing the mustang too hard, pulling the reins inappropriately, or startling a sleeping mustang.⁴⁸ The fourth objective of mustang therapy is to help people overcome their fears. Dunn states, "if a person is restricted in thought from trauma, and maybe they're anxious, they're literally presenting it to that horse, and he's picking up on it."⁴⁹ Service members often struggle to be vulnerable and communicate their fears to spouses, peers, and professionals.⁵⁰ Mustangs do not provide judgment; instead, they care how you treat them.⁵¹ Mustang therapy allows military members to accept and manage their fears and past experiences.⁵² The final objective at the school is trust-building. Mustangs do not criticize or accuse when they interact with their herd or humans.⁵³ It is the goal of the American Mustang School to have the participant open

⁴⁶ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁴⁷ Hayes, *Riding Home*, 41.

⁴⁸ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁴⁹ Dunn, "Horse Therapy American Mustang School United States."

⁵⁰ Bradley V. Watts et al., "Meta-Analysis of the Efficacy of Treatments for Posttraumatic Stress Disorder," *The Journal of Clinical Psychiatry* 74, no. 06 (June 15, 2013): e541–50, <https://doi.org/10.4088/JCP.12r08225>.

⁵¹ Hayes, *Riding Home*, 61.

⁵² Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁵³ Hayes, *Riding Home*, 138.

themselves up through mustangs' interactions, to assist the individual in building meaningful relationships outside of treatment.⁵⁴

The flexibility in mustang therapy for military personnel allows treatment to focus on both physical and psychological ailments in an individual or team environment because each treatment is tailored to the individual or team's needs and physical capability.⁵⁵ According to Dunn, "participants learn to present what they expect from the mustang, create a willing partner, observe and evaluate feedback, make changes within themselves and then re-present to the mustang."⁵⁶ Ultimately, the goal for collaboration with mustangs is for service members to encounter many beneficial experiences such as enhanced conscious awareness, self-innovation, mindfulness, and focused thinking.

B. INITIAL ASSESSMENT

At the American Mustang School, the initial assessment is the first evaluation of the subject to determine which mustang is best suited to the individual's needs. This assessment helps the school determine the time, duration, and frequency of each session. It also provides the baseline of the participant's previous experience with horses/mustangs and riding competency to help set riding and horsemanship goals.

1. Personal Data Collection

The initial assessment consists of (1) personal data collection, (2) in-person evaluation, and (3) the treatment plan. The personal data collection provides a complete image of the individual. The American Mustang School obtains this through collected paperwork. The paperwork includes personal identifying information like name, age, height, weight, and physical hindrances that can impede treatment. The next section of the

⁵⁴ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁵⁵ "How Mustangs Help Veterans," *VAntage Point* (blog), October 31, 2020, <https://blogs.va.gov/VAntage/80463/mustangs-help-veterans/>.

⁵⁶ "Horse Therapy American Mustang School United States."

paperwork discusses the number of deployments, the participant's duration of time served in their military units, and any medication that can affect the subject during the treatment. The paperwork has a section on family and emergency contact information in case of emergency. Finally, the last portion of the initial assessment paperwork is for the individual to express their goals for mustang therapy.

2. In-Person Evaluation

An in-person evaluation follows the initial assessment process. The in-person evaluation, conducted by Dunn, aims to assess how the participant will carry themselves during the sessions by placing the participant in the corral with the mustangs. Also, the subject is evaluated on how they adhere to directions, their commitment and willingness to cooperate during mustang therapy, and how hands-on the American Mustang Staff needs to be to assist the individual during treatment. The American Mustang School looks specifically at the participant's social skills to see their ability to relate and communicate to other humans and the mustangs. Eye contact is another social skill that is important for mustang therapy. Another aspect the school observes is the cognitive skills of the subject. The American Mustang School staff wants to determine the individual's recognition of themselves, the mustang, and others during the in-person evaluation. The school also examines sensory impairment, such as hearing and vision based on information provided on data sheet and by what the individual is wearing (hearing aid or glasses) because mustang therapy relies on senses to immerse the participant with the mustang and the treatment.

At the American Mustang School, the in-person evaluation occurs methodically and with purpose. The participant heads to the large horse corral, which houses all the mustangs. Both Dunn and the psychologist watches how the individual moves to the corral, looking at posture and their movement over different terrains. Also, during the walk to the corral, the staff asks questions related to the subject's experience with horses, and the overall being of the participant—the feeling of anxiousness with being at the school or interacting with the mustangs, or excitement to participate. Other questions asked are to

build rapport between the subject and the staff. The questions pertain to the individual's hobbies, relationships, and small talk. The American Mustang School staff evaluates the participant's ability to maintain eye contact, willingness to interact, posture, body language, defensiveness during the conversation, sustained or selective attention.

The questions are not as frequent once the participant and the American Mustang staff arrive at the corral. Typically, the focus of the subject is on the mustangs.. The typical questions are related to the mustangs—when did the mustang come to the American Mustang School, what are the temperaments of the mustangs, what are the names of the mustangs, have the mustangs hurt the other mustangs or a human? The staff observes the participant's body language: Is the subject engaged with the mustangs, looking forward, close to the corral fence, or calling the mustangs over to them? Or is the individual's body language focused on the staff for guidance and direction? Is the participant avoiding proximity to the corral, are they hyper-focused on any movement or sounds the mustangs make, or is the subject closed off with crossed arms and little interaction with the staff? Along with observing the subject, the staff watches the mustangs: Are the mustangs agitated by the presence of the individual, are the mustangs approaching the participant and investigating, are the mustangs just observing the subject, or are the mustangs indifferent? All the reactions and responses from the individual and mustangs outside the corral provides feedback to help determine the starting point and pace of therapy.

The next part of the in-person evaluation is entering the corral and interacting with the mustangs. The mustangs take the lead with the interaction with the participant. Sometimes the mustangs immediately approach the subject to investigate by smelling them, and other times they may keep their distance. The mustangs are not domesticated and determine the pace of interaction with the participant. If the mustangs approach the individual, the American Mustang School staff observes how the subject and the mustangs interact. Is the participant nervous if the mustang is smelling or nuzzling them? How does the individual react to the Mustang nipping, vocalizing, and galloping to and from the group? The staff observes how the subject touches the mustangs and moves around them—

are they tentative or purposeful, is the participant interacting with a single mustang or the whole group, does the individual look overwhelmed when the herd is all around them, and do they move closely around the mustangs to ensure they do not get kicked or take huge loops? The staff wants high comfortability for the subject and the mustangs. Based on the participant's assessment, the staff can select which mustang would serve best for the individual's therapy. Also, the staff can determine if the subject needs additional sessions to get comfortable being around a mustang. After the participant spends some time with the mustangs, the individual departs the corral to complete the final portion of the initial assessment, treatment planning. Of particular note, if the subject is apprehensive about entering the corral, the staff will note the response and move to the final phase of the initial assessment, developing the treatment plan.

3. Treatment Plan

The final stage of the initial assessment is developing the treatment plan. The American Mustang School understands the complexities of life and wants to develop a treatment plan that has built-in flexibility to ensure treatment of the participant and account for the ever-changing environments of military service. Also, the staff wants to see that the individual desires to upgrade themselves through mustang therapy. The therapy is a collaboration between the American Mustang School staff and those it serves. For example, participants provide their desired frequency of session (1-3 times a week), duration of the session (1-hour introduction to a full-day, Level V ride) depending on the needs of the individual, and when during the week the subject should come to the American Mustang School. Next, both Dunn, the psychologist and the participant establish goals for the therapeutic program. The individual develops individual goals for themselves during mustang therapy because they provide insight into what the subject may perceive as points of consternation in their life and create buy-in. The staffer discusses the treatment design to set expectations and expresses that mustang therapy is a process by describing the goals of each level of treatment. The final portion of the initial assessment is a question forum for the participant so that the staff can address any areas of concern regarding inexperience

with horses/mustangs, personal obligations, confidentiality, scheduling conflicts, and more. The goal of the staff is to have the subject focused on the upcoming first session, not apprehension. After the staff has answered all the participant's questions, the individual departs until their first session, Level I: Handling and Conditioning/Establishing Communication.

Before describing Level I, a few caveats—mustang therapy progression is dependent on the subject, not a set timetable. The participant's growth outweighs the speed at which the individual completes mustang therapy. Also, after the subject completes each session, they complete a feedback form for the American Mustang School. The form consists of the following questions:

- Thoughts/feelings about today before the session?
- Name of horse you partnered with.
- How did you feel upon meeting the horse?
- How long was your session interacting with the horse?
- Do you think your session was enough time with the horse?
- Did you enjoy your session with the horse?
- What part of the session was most beneficial for you?
- What can be done to improve the session?
- Thoughts/feelings after mustang therapy today?

The form ends with the participant's name and rank if applicable. The individual's response allows the staff to focus on the needs of the individual. Neither Dunn or the psychologist are obligated to report to unit commanders of individuals attending the school or provide progress evaluations. Any paperwork completed on behalf of the American Mustang School remains confidential between the school, the psychologist, and the participant.

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III. LEVELS OF MUSTANG THERAPY

A. LEVEL I: HANDLING AND CONDITIONING/ESTABLISHING COMMUNICATION

1. Haltering Mustang Partner

The goal of Level I is to establish appropriate communication between the subject and themselves, from the subject to the mustang, and from mustang back to the subject. Level I starts with the subject's introduction to their mustang. Depending on the participant's level of comfort with mustangs, the individual may halter their mustang partner. The subject enters the pasture with all the mustangs and places a bitless bridle on their therapeutic horse partner. There is no guarantee the mustang will allow the participant to contact it or place the halter on its head. The staff monitors and coaches the individual on approaching the mustangs and putting the bridle over the mustang's ears and muzzle.⁵⁷ After haltering the mustang, the subject leads their partner to the smallest corral on the American Mustang School. Suppose the participant is uncomfortable with the mustangs based on the initial assessment. In that case, the staff will stage the mustang at a smaller corral before starting the therapy session. Also, if the individual becomes overwhelmed with entering the mustang herd or placing the bridle on the mustang, the staff will step in and provide hands-on teaching to promote confidence in both the subject and the mustang.⁵⁸ The process of gathering and placing the halter on the mustang is an ongoing task, and efficiency improves over time due to the bond between mustang and participant. Once the mustang and the individual arrive at the smaller corral, the next task is grooming for mindset.

⁵⁷ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁵⁸ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

2. Grooming for Mindset

Participants groom the mustang with a horse brush and sprays the mustang with fly spray to prevent flies from biting their partner. Once comfortable, participants provide hoof care for their therapeutic partner. The process of hoof care relies on trust between the human and the mustang. The mustang must allow its partner to pick up and hold its leg to enable the participant to clean and trim its hoof, if necessary. Mustangs use mutual grooming to “express camaraderie among horses and [it] helps bonding in the herd.”⁵⁹ The mustang may begin to nibble at the individual’s clothes and hair, behaviors that some suggest indicate reciprocity for grooming them.⁶⁰ Also, while grooming, the subject learns of areas on the mustang that are sensitive areas and areas of enjoyment. The mustang will cue the participant on these areas. For spots of enjoyment, the mustang may lean into the individual, curl its upper lip, or strain their neck to keep the subject on a specific spot.⁶¹ The mustang may become rigid and tense for sensitive areas, flick their tail, pin their ears back, or kick.⁶² The participant needs to cue on the responses of the mustang. Grooming allows the individual and the mustang to synchronize thoughts, emotions, and interactions. If the subject is high energy and stroking the mustang with vigor, the mustang can detect and often emulate a similar disposition. Mustangs “possess an evolutionary advantage [mirroring] that enables them to pick up on participants’ emotions, while at the same time not being judgmental and even uncovering emotional blind spots.”⁶³ Mustang horses’ anatomy allows the mustang to hear a heartbeat from over four feet away and synchronizes

⁵⁹ Ron Meredith, “Horse-Logical Communication Starts with Grooming,” MeredithManor.edu, accessed February 16, 2022, <http://www.meredithmanor.edu/features/articles/drm/grooming.asp>.

⁶⁰ Meredith, “Horse-Logical Communication Starts With Grooming.”

⁶¹ Joshua A. Herrington, “Observations at the American Mustang School” (Mustang therapy, The American Mustang School, Aberdeen, NC, October 16, 2021).

⁶² Joshua A. Herrington, “Observations at the American Mustang School” (Mustang therapy, The American Mustang School, Aberdeen, NC, October 16, 2021).

⁶³ Wendy Bowman, “Horses Have an Extraordinary Ability to Help Humans,” HowStuffWorks, February 11, 2020, <https://health.howstuffworks.com/mental-health/coping/horse-therapy.htm>.

with it to detect changes in its environment faster, which is paramount to its survival in the wild.⁶⁴ Based on two pathways of communication, the individual needs to determine the presence they want to present to the mustang.

3. Two Pathways of Communication

During Level I, Dunn introduces two pathways of communication to the subject. The first communication pathway is inward, and the second is outward communication. An individual's subconscious thoughts and feelings manifest into the pathway and present to the mustang for the internal pathway.⁶⁵ The external pathway is the attitude and actions formed by the inner thoughts and displayed to the horse through body language and physical behaviors.⁶⁶ Understanding this communication form is paramount for the participant because it is how mustangs communicate. Mustangs communicate continually through the position of their body, tail, ears, and head to inform others of their attitude and thoughts.⁶⁷ Also, a mustang communicates in this manner to survive in the wild. To avoid unwanted attention from predators, the mustang will not communicate through vocalization; instead, the mustang will posture its outward pathway to communicate predator, and the other mustangs will react accordingly.⁶⁸ In this instance, the individual must reflect on their focus, thoughts, and emotions internally and present it appropriately to the mustang through grooming.⁶⁹ The feedback loop in the communication cycle

⁶⁴ Haley Rosenberg, "Two Bodies, One Heart: Horses and Your Heartbeat," Jumper Nation, December 16, 2020, <https://jumpnation.com/two-bodies-one-heart-horses-and-your-heartbeat/>.

⁶⁵ Mary Ann Simonds, "Communication: Horse Whispering," Equine Wellness Magazine, July 24, 2013, <https://equinewellnessmagazine.com/horse-whispering/>.

⁶⁶ Simonds, "Communication."

⁶⁷ DeAnn Sloan, "Don't Believe Everything You Think – With Wild Mustangs and Life," *HORSE NATION* (blog), April 15, 2020, <https://www.horsenation.com/2020/04/15/dont-believe-everything-you-think-with-wild-mustangs-and-life/>.

⁶⁸ Jones, "Horse-Human Cooperation Is a Neurobiological Miracle | Aeon Essays."

⁶⁹ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

between the mustang and the subject is instantaneous.⁷⁰ Suppose the mustang’s response is not what the participant wanted; they can quickly change their presentation and try again by reflecting on where the disconnect was. Were the individual’s thoughts and focus somewhere else instead of focused on grooming the mustang? Or was the subject’s presentation disconnected, i.e., body language and action? Dunn assists and coaches during these non-verbal discussions between the participant and the mustang. The emphasis of the coaching is to remind the individual they are in control of their two pathways of communication and ask reflective questions to promote internal dialogue to manifest their desired presentation to the mustang.⁷¹ Eventually, after a couple of iterations of the feedback loop, the subject will achieve their goal of presenting their desired intent and effectively communicating with the mustang.

Dunn can determine if the participant has accomplished grooming for mindset by observing if the pair has synchronized in breathing, relaxation (varies from individual to individual), and temperament.⁷² Dunn wants to see the mustang inhale and exhale simultaneously with the subject. Also, the team desires to observe the pair’s breathing to be in rhythm throughout the therapeutic session. Relaxation in a mustang and a human are similar and different. As stated previously, both mustangs and humans show ease through little to no muscle tension and breathing. Mustangs can also exhibit relaxation with a dropped head, eyes either open or half-closed, but showing no white, and lifting a hind leg to rest it.⁷³ Temperament circles back to the concept of mirroring—mustangs will match

⁷⁰ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁷¹ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁷² Chiara Scopa et al., “Emotional Transfer in Human–Horse Interaction: New Perspectives on Equine Assisted Interventions,” *Animals* 9, no. 12 (November 26, 2019): 1030, <https://doi.org/10.3390/ani9121030>.

⁷³ “Understand Your Horse’s Body Language RSPCA,” accessed February 16, 2022, <https://www.rspca.org.uk/adviceandwelfare/pets/horses/behaviour/bodylanguage>.

the participant's temperament and energy.⁷⁴ Upon completing grooming for mindset, the individual moves to the five-part series designed by Dunn.

4. Five-Part Series

The five-part series is another means for the subject to establish communication and leadership with the mustang. The colloquial term used at the American Mustang School to establish communication with the mustang is “asking questions;” outside of the school it can be deemed as the individual giving commands to the mustang without pain or punishment. The participant asks the mustang five questions, which allows Dunn to understand the individual better.⁷⁵ Also, the mustang and the subject gain a greater understanding of each other and themselves through the communication.⁷⁶ The five questions asked of the mustangs are backup, go left, go right, come forward and stop, and stay with a ground tie. The participant asks the question by applying pressure to the mustang. The individual applies pressure by manipulating the lead rope or giving a hand signal to the mustang to complete a task. The subject releases the pressure to thank the mustang by no longer asking the question, ground tying the mustang, and typically petting the mustang. Dunn provides instruction to the individual on how to ask the question and how to release the mustang. The first question of the five-part series is to ask the mustang to backup. The participant asks this task of the mustang by facing their therapeutic partner, holding the lead rope in their dominant hand with two fingers, and beginning moving the lead rope left and right in a serpentine motion. Typically, the individual starts moving the lead rope slowly and increases the frequency until the mustang steps back. As soon as the mustang steps back, the subject drops the lead rope and allows the mustang to decompress with scratches and praise. One aspect of the five-part series is the participant becomes

⁷⁴ Bowman, “Horses Have an Extraordinary Ability to Help Humans.”

⁷⁵ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁷⁶ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

familiar with the mustang's comfortability. Some mustangs want to interact near the individual, while others prefer to interact from a distance. Again, the subject is deepening their understanding of themselves and their partner.

The participant's next question in the five-part series is asking the mustang to walk in a counterclockwise motion around them. The individual leverages the lead rope and hand signals to communicate the task to the mustang to complete this question. The subject faces their mustang, while holding the lead rope in their left hand and the end of the lead rope with the right hand. The participant points to the left while holding the lead rope with the left hand to question the mustang. To apply additional pressure, the individual twirls the end of the lead rope in their right hand in a circular motion to set the pace for the mustang. Also, the subject has to "close the gate" on the mustang, which means the participant positions their body to the mustang's right and "cuts off" its escape. In reality, the individual cannot stop a 1,100-pound animal. The subject must communicate to the mustang through their body language that they want their mustang partner to move to their left in a counterclockwise motion around them. Once the mustang turns left and moves at the pace set by the participant, the mustang is released from the task and given time to decompress. During the decompression time, mustangs take a deep breath, and typically the individual does as well due to the synchronization of relaxation and temperament.⁷⁷ The third question is the same as the second but in the opposite direction. The subject's goal is to have the mustang turn to the right and move in a clockwise motion. The hand signal and lead rope work are the same, but opposite hands. Also, the participant "closes the gate" on the mustang by positioning their body to their partner's left and having the mustang move clockwise around them. After the mustang completes the question, the individual shows their gratitude by releasing the pressure and allowing the mustang to decompress.

⁷⁷ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

The fourth question in the five-part series is the release from questions two and three. To stop the mustang from revolving around the subject, the participant has to communicate to the mustang to stop. The individual has two tasks to accomplish in this step. The first task is to have the mustang square up and face the subject, then step forward. The second task is to have the mustang stop. To cue the mustang to square up to the participant, the individual drops the lead rope from the hand, indicating the mustang's current direction of travel while walking in a circle. Then with the same hand, the subject points at the mustang's hip, "pushing" the hip out and squaring the mustang up face-to-face with the participant. Simultaneously, the individual is stepping back from the mustang to prompt their partner to step towards them. When the subject is stepping back, they are not pulling aggressively on the lead rope to prompt the mustang to step forward. If the mustang does not understand the question or what the participant is communicating, the individual can place tension on the lead rope to have the mustang understand and move forward. After the mustang steps forward towards the subject, the lead rope is released, which allows for scratches and affection between partners.

The fifth and final question of the five-part series is a successful ground tie. A ground tie is a simple but essential task for the participant to master. The mechanics of the ground tie are simple: the individual drops the lead rope to the ground, and the mustang stays tethered to the same spot. A ground tie allows for the mustang to connect positively to the earth by anchoring and allows the mustang to decompress.⁷⁸ A deep breath is one way to see the mustang unwinding. Another way a mustang reveals it is relaxed is by releasing tightness in the mouth because the anatomy of a mustang connects the mouth to the ears, the neck, and down to the front legs.⁷⁹ The mustang does not have to stay on the ground tie and can roam the corral in which Level I is taking place. If the mustang and the subject are in unison, the mustang will stay where the ground tie is and look for the next

⁷⁸ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁷⁹ Jennifer William, "Horse Body Language: How To Read It And Understand It," Equus Magazine, May 26, 2021, <https://equusmagazine.com/behavior/horse-body-language/>.

question from the participant. The mustang can reveal a distorted communication between them and the individual by leaving the ground tie and focusing on eating or getting water. The ground tie provides another feedback loop for the two pathways of communication allows the participant to reflect on the questions they successfully communicated to the mustang and the questions they had difficulty with, evaluate their body language, and focus to the task at hand.⁸⁰ Completing the five-part series is the bridging accomplishment for a participant to move from Level I to Level II: Leadership and Relationship.

B. LEVEL II: LEADERSHIP AND RELATIONSHIP

The five-part series aims to build communication lines between the mustang and the individual and develop the subject's leadership capability. The goal of Level II is for the participant to establish a leadership role by producing an eager partner out of their mustang. The individual cannot lead their mustang partner by having them submit through fear and pain. Instead, the subject must garner leadership of their therapeutic partner through "servitude leadership," meaning the participant must display that their mustang partner's well-being is more important than leading them. In the wild, mustang stallions lead their herd by maintaining constant vigilance, rush into danger to protect any member of the group, navigate rugged terrain first before another member, and will lay down their life for the survival of the herd.⁸¹ No mustang cares about an individual's status, wealth, or influence in the human domain.⁸² The mustang only cares that the subject has their best interest at hand during the therapeutic session.⁸³ In the feedback loop, the mustang is a willing partner that will follow any commands the participant gives without hesitation or

⁸⁰ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁸¹ Naomi Sharpe, "Understanding Horse Herd Dynamics," Happy Horse Training, accessed February 16, 2022, <http://www.happy-horse-training.com/herd-dynamics.html>.

⁸² Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁸³ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

protest.⁸⁴ In return, the therapeutic partners will complete any mission or overcome any obstacles placed in front of them because of trust. Dunn wants to see the individual draw their mustang in and provide expectations for their partner, as a good leader should.⁸⁵

Dunn assists the subject in establishing their role as the leader of their mustang by creating an obstacle course.⁸⁶ The obstacle course consists of navigating through cones (s-curve), navigating over a bridge, moving over PVC pipes, and interacting with a tarp. The mustang's position is critical during the obstacle course because the participant needs to use little to no pressure on the lead rope to have their mustang complete the task. The ideal position of the mustang is at the individual's six o'clock and about a foot of separation between the partners. The mustang can also be next to the subject's shoulder. The participant cannot have the mustang lagging or leading the pair because their ability to communicate their expectations is lost.⁸⁷ Increased pressure on the lead rope is the only means to have the mustang complete the task. If the mustang leads the individual, it is likely for one of two reasons: either the mustang is mirroring the subject's excitement and this interferes with their focus on the task, or the mustang is assuming the leadership role because the participant is not presenting a solid leadership presence. The individual can correct the focus of the mustang by completing the five-part series again. The reset allows the subject to reflect internally on their thoughts and emotions, present outwardly to the mustang, and course correct. Dunn can coach the participant if they struggle with communicating appropriately to the mustang. The coaching will ask reflective questions to the individual to ensure they have an internal dialogue with themselves and describe the

⁸⁴ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁸⁵ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁸⁶ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁸⁷ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

subject's current body language to them.⁸⁸ Dunn wants to ensure the participant implements the two communication pathways and uses the feedback loop for contemplation.

1. Winding Cone Obstacle

Task one for the individual and the mustang to complete is a winding cone obstacle. The subject starts at one end of the cones. The participant must weave their mustang through the cones at an even pace and keep them tight to the cones without knocking them over. The mustang may attempt to avoid the cones because it is unfamiliar, and the mustang may deem the cone a threat. The mustang will show its discomfort through its body language, and the individual needs to cue in on any change in their partner.⁸⁹ The subject can show the mustang that the cones are no threat by allowing it to smell the cone(s) and move past them as inanimate objects. If the pair is in synch, the mustang will emulate the participant's confidence and move past the cones with no issue. It may take a series of attempts to lead the mustang through the cone obstacle until the mustang and individual can travel through the cones appropriately. After each iteration of moving through the course, the subject will ground tie the mustang and allow the mustang to decompress with words of affirmation and scratches. After completing the cone obstacle course, the team must navigate a bridge together.

2. Bridge Obstacle

The goal of the bridge obstacle is to reinforce the therapeutic goal of servitude leadership by the pair traveling over the bridge with the participant in the lead and the mustang willingly following suit. The bridge provides three discomforts for the mustang. First, the mustang must step onto an elevated platform, the "bridge." The mustang has to

⁸⁸ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

⁸⁹ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

gauge how high it needs to pick up its legs to safely place its hoof on the platform.⁹⁰ Sometimes the mustang will miss the platform when trying to reach it with its leg or its hoof will not be underneath itself causing the mustang to slip.⁹¹ Terrain change can cause apprehension in the mustang because the animal leaves the coarse sand of the corral for the slippery wood of the bridge.⁹² Also, there is a change in sound when the mustang's hoofs make contact with the wood.⁹³ To overcome the bridge, the participant needs to account for these variables and develop a camaraderie with their mustang. The individual knows they cannot drag the mustang across the bridge with the lead rope; instead, they need to garner the willingness of the mustang. Leadership through patience is essential for the subject to complete the task.⁹⁴ To start, the participant brings the mustang to the bridge and allows the mustang to assess the obstacle. The mustang may present anxiety for the bridge. If so, the individual will rest the mustang by circling away from the bridge and approaching again. Next, the subject steps on the bridge and attempts to travel over it with the mustang. The mustang may only place one hoof on the bridge and step off. The participant will praise the mustang for attempting to climb the bridge and then circle away from the obstacle to refocus the mustang and themselves. The mustang may get startled or unsure during each attempt, but the individual will reassure their partner, reset, and attempt again. Through repetition and proper leadership, the mustang will gradually make it up and over the bridge, willingly following their leader. After conquering the bridge, the human-mustang team will move to the PVC pipe obstacle.

⁹⁰ Mastery Horsemanship, *Bridge and Water Crossing with Horses*, 2019, <https://www.youtube.com/watch?v=ad5C7ymVI4M>.

⁹¹ Mastery Horsemanship, *Bridge and Water Crossing with Horses*.

⁹² Mastery Horsemanship, *Bridge and Water Crossing with Horses*.

⁹³ Mastery Horsemanship, *Bridge and Water Crossing with Horses*.

⁹⁴ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

3. PVC Pipe Obstacles

The therapeutic team must navigate a PVC pipe perched on two wooden blocks following the bridge obstacle. The PVC pipe is unsecure; it can move if struck by the subject, the mustang, or affected by the weather. The task for the participant is to have the mustang step or jump over the pipe. The mustang may hesitate to step over the tube. The individual must step over the obstacle first and provide confidence to the mustang to complete the task. The subject walks the mustang up to the pipe, allowing the mustang to investigate the PVC pipe, and thanks the mustang with pats and kudos. Then the participant circles away from the barrier and resets. Also, during the task, the mustang may become startled by striking the pipe or something else affecting the PVC pipe. The individual must control the situation by moving the mustang away from the structure and resetting the mustang with scratches and praise. If the subject and mustang are in-synch, the mustang will be unfazed by the PVC pipe's movement because it trusts its human has its best interest at heart. Though the mustang being unfazed by the PVC pipe is excellent progress, the participant will reset and try again because the goal is to navigate the obstacle without the pipe falling off the blocks. A telling sign the mustang and the individual are out of synch is the mustang's refusal to step over the PVC pipe, even with applying pressure with the lead rope. In these instances, the subject moves away from the obstacle, conducts a ground tie for the mustang, and resets themselves. The completion of the task may take an extensive amount of time or very little. The bond and the leadership skills of the participant is the determining factor. Upon navigating the PVC pipe, the pair will move to the final obstacle, the tarp.

4. Tarp Obstacle

The tarp is the trickiest obstacle to navigate in Level II because it is unpredictable. The tarp can shift erratically from the weather or shift in the corral sand at a moment's notice. The tarp makes noise every time it moves which is sometimes loud and distracting and at other times quiet and subtle. Traditionally, a mustang's fight or flight instinct kicks

in with loud noises and sudden movements.⁹⁵ The task begins with draping the tarp over the corral fence. The tarp can move, touch the mustang, and make noise in this position. The individual's goal is to pass by the tarp as closely as possible without the mustang's focus being on the tarp. To start, the subject positions themselves and the mustang roughly ten feet away from the tarp and near the fence. The pair will walk the fence line to the tarp. If the mustang becomes startled, hesitant, or anxious by the tarp, the participant first will allow the mustang to investigate the tarp. Then the individual will pet and praise their partner, circle away from the tarp, and conduct a reset at the starting point. Again, the subject cannot just pull the mustang past the tarp with the lead rope. The participant must create a desire and willingness in the mustang to pass by the tarp. The presence of the individual is critical in this task. The subject cannot be anxious for the mustang to react negatively to the tarp. Instead, they must project to their mustang the tarp is not a threat, and they are concerned about their partner's well-being.⁹⁶ The duration of completing this task is dependent on the relationship between the therapeutic partners. Once the individual walks past the tarp with the mustang focused forward, then the pair can move to the second part of the obstacle.

The next task with the tarp is having the mustang and the subject walk on the tarp with no reaction. Dunn removes the tarp from the corral fence and lays it out on the ground of the corral, creating a new tarp configuration that presents three challenges for both therapeutic partners. The tarp changes the terrain texture for the mustang's hoofs from sand and dirt to plastic, fibrous material. Also, as the pair proceeds over the tarp, the tarp will crinkle and make noises, potentially unnerving the mustang. The tarp will move as the pair walks on it, or the weather moves it, which can also startle the mustang during the task. To start the obstacle, the participant stages themselves and the mustang roughly ten to fifteen yards away from the tarp, then walks forward over the tarp and returns to the corral sand.

⁹⁵ Kris Hiney, "Training Horses Safely - Oklahoma State University," March 1, 2017, <https://extension.okstate.edu/fact-sheets/training-horses-safely.html>.

⁹⁶ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

During the first attempt over the tarp, the individual may need to let the mustang investigate and understand the task at hand. If the mustang fails to walk across the tarp without a response or hesitation, the subject circles and resets at the start. The participant leads their partner over the tarp and is conspicuously present during the task. Also, the individual needs to encourage their mustang through praise, affection, and patience. Ultimately, the subject learns how to communicate a focused and direct message internally and present the desired intent directly, and servitude leadership. Through the combined effort of the participant and the mustang, they will overcome all the obstacles and move on to the next level.

Some caveats to Level II. The order of accomplishment of obstacles is not relevant. Also, the individual may complete one task and reset, the therapeutic partners may move straight to another task or complete all of the obstacles in one attempt. The goal is to teach a subject servitude leadership and help them create an eager and willing partner in their mustang. In addition, it may take multiple sessions for the participant to navigate all obstacles in Level II successfully. After completing Level II, the individual moves to Level III: Transfer from Ground to Saddle.

C. LEVEL III: TRANSFER FROM GROUND TO SADDLE

The goal of Level III is to further the bond between the subject and the mustang. Riding a mustang brings an entirely new element to mustang therapy, and thus Level III is the most exciting level for the participant. The individual goes from leading an 1,100-pound, all-muscle mustang with a lead rope to mounting it. The attention of the subject is strictly between themselves and their mustang partner. The focus of the participant's thoughts, emotions, attitude, and actions are on presenting precisely what they expect from the mustang. There are three steps in transferring from ground to saddle. First, the individual learns about saddling up a mustang. Then the subject completes lateral flexion with their mustang partners. The level is complete when the participant completes a new

5-part series in the saddle. The therapeutic goal is to teach the individual how to communicate through actions.⁹⁷

1. Saddling a Mustang

Saddling a mustang is remarkably similar to carrying a pack on your back because if the saddle is incorrect, the mustang can become uncomfortable and unfocused. The first task for the subject is to groom the mustang to ensure they are clean and dry. If there is dirt and moisture underneath the saddle, blisters and sores can occur on the mustang due to friction and rubbing. Next, the participant puts a blanket or pad on the mustang's shoulder and then moves it to the middle of the wild horse's back ensuring it is even across the mustang's back. The reason behind moving the blanket and cushion down is to prevent hair loss and friction. Before placing the saddle on the mustang, the subject sets the right stirrup and cinch on the saddle's horn. This action protects the mustang from being hit and harmed by the stirrup or cinch. The participant positions themselves on the left side of their mustang and softly sets the saddle on their back. Only two inches of the cushion should be visible under the front portion of the saddle with no wrinkles in the pad. The saddle blanket is pulled up and placed under the saddle's horn to create airflow and protect the horse's withers. The individual moves to the mustang's right and gently releases the stirrup and the cinch from the saddle's horn. Simultaneously, the subject will verify the mustang's tack and saddle are centered with no wrinkles in the cushion. Next, the participant will return to the left side of the mustang to secure the left stirrup on the saddle's horn, and then the individual must reach under the mustang to obtain the cinch. With the cinch, the subject laces the saddle's latigo through the cinch buckle and secures it to the saddle's D-ring by rethreading the latigo through the buckle again. The mustang will expand its ribcage when the participant tightens the cinch. The individual needs to wait for the mustang to breathe out to ensure the cinch is snug to the mustang's body. After securing the latigo to the D-ring with a cinch knot, the subject checks the cinch with two fingers in between the mustang

⁹⁷ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

and the cinch. Then the participant will release the left stirrup from the horn, double-check the pad, and check all ties. After saddling up the mustang, the individual moves to lateral flexion.

2. Lateral Flexion

Lateral flexion plays three roles in mustang therapy. First, lateral flexion is like the ground tie, a mechanism for the mustang to decompress. Secondly, it teaches the subject how to communicate to the mustang through the reins. The last role of lateral flexion is to instruct rein control to the participant. Lateral flexion is another question-and-answer dialogue between the mustang and the individual. The subject applies pressure on the reins, and the mustang turns its head towards its front shoulder, in the direction of the pressure. After the mustang turns its head in the direction of the pressure, the participant releases to reinforce the horse through petting and praises. To communicate appropriately through the reins, the individual needs to learn how much pressure to apply to the reins. When the subject asks the mustang for lateral flexion, they grasp the reins in their thumb and forefinger and pull the reins gently two to four inches in the direction of the desired flexion. If the mustang does not respond, the participant will bump the reins by pulling (only a few inches) and releasing the reins until the mustang responds. The individual conducts lateral flexion on both sides of the mustangs because the pressure required may be different depending on the direction of the flexion. Before the subject mounts the mustang, they conduct a lateral flexion on the same side they get into the saddle. If the participant fails to complete the lateral flexion, the mustang is not inviting the individual to ride them. The subject self-reflects, refocuses, presents to the mustang through the feedback loop, and tries the lateral flexion again.

Completing lateral flexion signals to the mustang the mounting task. The participant places their left foot in the saddle, grasps the saddle's horn, swings their right leg over the saddle, and puts their foot in the stirrup. Then the individual holds the center of the reins and begins the five questions of the five-part series in the saddle. The first question the subject asks the mustang is to move forward. The participant raises the center

of the reins and apply pressure on the mustang's ribs with both calves. To thank the mustang, the individual releases the tension from their calves. Then the subject executes a right lateral flexion by moving their right hand from the center of the reign, moving along the reins until there is tension, then pulling two to four inches to have the mustang stop. Once the mustang stops, the participant provides affection and praises to their partner. The next question the individual asks is a right turn. To execute the right turn, the subject performs a right lateral flexion by moving their right hand from the center of the reign, moving along the reins until there is tension, then pulling the reins two to four inches. The participant applies pressure with the left calf until the mustang turns right. To complete the thank you, the individual releases the pressure from the calf and achieve a right lateral flexion until the mustang stops. The left turn question is like the right turn. The difference is that the left hand moves from the center of the reins, runs down along the left side until there is tension with two fingers, then pulls the reins two to four inches. The subject squeezes the mustang's right ribs until the mustang makes a left turn. The participant completes the right lateral flexion to release and thanks the mustang. The next task the individual needs to complete is backing the mustang up while in the saddle. To back up, the subject maintains their hands at the center of the reins and creates tension by pulling them back evenly while applying pressure with their calves. The participant says thank you to the mustang by releasing the calve pressure on the mustang's ribs and shifting the tension from the reins to the rear to a right lateral flexion. The fifth and final question in the five-part series is stopping the mustang, which the individual executes throughout the level. The ultimate goal of the level is for the subject to maneuver the mustang with little to no pressure with the reins. The connection between the participant and the mustang will increase again, increasing the focus of the therapeutic partners. Next for the individual after Level III is focused riding in Level IV.

D. LEVEL IV: FOCUSED RIDING

Level IV: Focused Riding is the subject overcoming obstacles with their mustang while in the saddle. The goal of this level is for the therapeutic partners to complete all

obstacles with a calm mind and clear focus. The riding for Level IV no longer takes place in the corral or arena; instead, it occurs on the 75-acres of the American Mustang School. The participant must revisit previous obstacles like the winding cones, the bridge, and the tarp while riding their mustang. During this level, some additional challenges for the pair includes riding up an embankment and completing figure-eights around pine trees. Another unique aspect of being on the entirety of the American Mustang School property is the variety of terrain (pine straw, dirt, rocks, and grass). The uncontained environment presents numerous unknowns that can affect the pair, like wildlife. If the individual is not providing the appropriate leadership, the mustang will take advantage of the situation.

1. Winding Cones Obstacle in the Saddle

All the requirements for each task are like when the subject was on the ground and using the lead rope. When attempting the winding cones, the participant must weave in and out as close to the cones as possible with their mustang. The task can be difficult for the individual because they must constantly change hand positions on the reins and switch which side of the mustang in which, they are applying pressure with their calves. If the subject fails to maintain focus during the obstacle, the mustang can turn 90-degrees from the cones, miss cones versus weaving through all of them, or just walk straight. Typically, Dunn asks the participant to return to the start, conduct a lateral flexion, and asks what happened. The individual reflects and realizes their internal pathway began to focus on something other than steering the mustang through the cones, and the mustang sensed it. Dunn helps the subject understand that if they come off-center, the feedback loop informs them via the mustang's actions, and then they need to refocus and correct rapidly.⁹⁸ The connection between the participant and the mustang is even more significant than the ground work because the mustang can feel every physiological (shifts in the saddle or

⁹⁸ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

tension in the reins) and mental change (lack of direction) in the individual when they are in the saddle.⁹⁹

2. Bridge Obstacle in the Saddle

Navigating the bridge and the embankment obstacles while in the saddle can be daunting for the subject and the mustang. The pair must work as a cohesive unit to complete the task. The participant must be assertive and apply enough pressure to encourage the mustang to complete the obstacles. The trust and willingness built during Level II assist the pair in accomplishing the task. The individual must ensure they stay centered on their mustang and shift with their partner when they step up on the bridge and climb the embankment. Also, rein control is vital to these challenges because the adjustment to keep the mustang on track is subtle and minor. If the mustang hesitates or refuses to continue onto the obstacle, the subject circles away from the obstacles and completes a lateral flexion to reset the team to try again with greater focus. During the resets, the participant provides affection and praise to their mustang to assist the individual in communicating their desired expectation to the mustang. Once the therapeutic team completes the task of traveling up and down an embankment and crossing the bridge, the pair takes on the tarp.

3. Tarp Obstacle in the Saddle

Again, the tarp is very unpredictable for the subject and the mustang. Though the mustang may be familiar with the inanimate object, its erratic movement and noise can unsettle it. It is imperative the participant key in on the physiological responses of their partner during the exercises. If the mustang is startled by the tarp and flees, the individual needs to control the mustang. The subject completes a right lateral flexion with their partner to stop and grounds the mustang. Then the participant encourages the mustang and informs them they are okay through affection and reassurance. Next, the individual moves near or on the tarp and stops the mustang, depending on what portion of the challenge they are on.

⁹⁹ Channing M., “Can Horses Sense Fear and Anxiety?,” February 16, 2021, <https://horserookie.com/horses-sense-fear-anxiety/>.

The rationale behind the stop is for the subject, being the leader of the pair, to show a calm demeanor around the tarp to the mustang to reduce nervousness and anxiety. The stop is a notable example of the two pathways of communication feedback loop in action during mustang therapy. Once the participant consistently demonstrates to their partner that the tarp is no danger to them, the mustang will walk next to and on the tarp with ease. After the pair can move at different paces next to and over the tarp, they attempt figure-eights around pine trees on the school's property.

4. Figure-Eight Obstacle in the Saddle

Conducting figure-eights around pine trees on the American Mustang School property is no easy task. To start, the individual enters a grove of pine trees with their mustang. The subject selects a tree, completes a full circle around it, then proceeds diagonally to another pine tree and executes another complete rotation. The trees are incredibly close to one another and provide little room for error when navigating. Also, the participant is asking their 1,100-pound partner to turn on a precise point in a small space. The ability of the individual to communicate through their body and rein control is critical to complete this task. The subject can lose focus quickly during this task because they are focused on everything in the environment rather than on the mustang. The mustang has a survival instinct, which keeps the mustang from running into trees.¹⁰⁰ The participant must trust their communication ability with the mustang and signal when their partner should turn around the tree and proceed in the diagonal direction. Once the individual narrows their focus, emotion, and attitude to the figure-eight task and presents the desired outcome to the mustang, the pair can complete the obstacle and move on to Level V.

E. LEVEL V: RIDING IN TRUE UNITY

Level V is the culmination of all the previous levels, and the therapeutic team rides in "true unity" in the real world. The subject's goals determine what riding in true unity is.

¹⁰⁰ Audrey Pavia, "The Mustang Mind," *Horse Illustrated Magazine* (blog), December 9, 2014, <https://www.horseillustrated.com/horse-breeds-the-mustang-mind>.

The goal of Level V is to apply two pathways of communication, servitude leadership, focus, and trust of the pair in the mustang's environment.¹⁰¹ The participant can decide if they would like to ride with their mustang in the neighborhood that surrounds the American Mustang School. Or the individual can request to travel to western North Carolina and ride in the mountains. The environment to conduct the true unity ride is determined by the subject. No matter where the ride takes place, the participant must leverage all skills learned in the other levels.

Before conducting the ride, the individual performs an abbreviated version of grooming for mindset. It allows the subject and the mustang to synchronize and focus on the long ride. Also, it prepares the mustang for its saddle. After the participant secures the mustang's saddle to the center of their partner's back, they conduct the five-part series on the ground. The individual completes all questions consecutively. When the team completes the five-part series, they move to lateral flexion for rein control and pressure responses for the mustang. Then the subject conducts a left lateral flexion and mounts their mustang. After the participant is seated in the saddle, the pair completes the five-part series. Once the individual finishes all the series questions, the mustang receives a right lateral flexion to allow the mustang to decompress before they move out.

The obstacles in the real world are unpredictable, similar to the tarp. Every aspect of the two-obstacle courses prepares the team to react appropriately to any impediment to the real world. The subject is proficient in servitude leadership and places their mustang partner's health and welfare over anything else. The participant created a willing and eager partner in their mustang through servitude leadership. The mustang trusts the individual will communicate clear and concise directions while staying focused in the saddle. Also, the mustang understands the difference in urgency of each command based on the pressure applied to the reins and the mustang's body. The subject understands the mustang's

¹⁰¹ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

physiological response to stress or anxiety. The participant encourages and reassures their partner with praise and affection or provides a decompression period to reset.

Another aspect of Level V is that the individual leaves the human domain to enter the mustang's arena. The challenges of life, work, and relationships cannot interrupt the participant's focus during the long ride with their mustang partner. The mustang will notice and bring the individual back to the present, not because they judge the subject, but because they want their leadership. Constant communication in the feedback loop and the two pathways of communication ensures the partners are riding in unity. The participant can observe the mustang in its natural environment—nature. The mustang shows the individual how they navigate different terrain and landscapes to reach their desired location. The subject keens on the mustang's ear and eye movement to see what has drawn their attention. The desired outcome for the participant is to enjoy the elements surrounding them instead of ruminating on negative thoughts and influences. Upon completing the ride, the objective is for the individual to feel upgraded and reconnected with themselves, life, and nature.¹⁰²

¹⁰² Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

IV. CONCLUSION

A. CONCLUSION

1. Summary

The purpose of this thesis is to describe mustang therapy for military commands, leaders, and medical professionals. Due to the lack of current research on mustang therapy for the military, this thesis provides an overview of the process used by the American Mustang School. Though mustang therapy shares similar features and goals with equine therapy, but the mustang horse brings a new element to the therapy because of the mustang's sensitive nature from living in the wild and commonalities to humans who have experienced pain and trauma.¹⁰³ There are numerous organizations throughout the United States that have a mustang therapy program that caters to military members, but the American Mustang School stands out due to its proximity to Fort Bragg, North Carolina. The American Mustang School is an EAS/EAL accredited school and has a small staff—Dunn teaches horsemanship and military behavioral psychologists from participants' units conduct their therapy. It is the school's goal to provide mustang therapy to participants at no cost by financial support from military commands and benevolent organizations.¹⁰⁴

The American Mustang School has numerous objectives and goals for its participants as they progress through therapy with their mustangs. Ultimately, the school wants the participant to self-enhance by reflection, innovation, communication, and mindfulness through the interaction with the mustang. The lessons learned through the interaction with the mustang then can be carried over to other aspects of the participant's life such as work and family. The potential success of the American Mustang School is

¹⁰³ Andrea London, "Horse and Human Trauma Survivors Help Each Other Heal," *The Plaid Horse Magazine*, January 29, 2021, <https://www.theplaidhorse.com/2021/01/29/horse-and-human-trauma-survivors-help-each-other-heal/>.

¹⁰⁴ Justin Dunn (The American Mustang School owner) interviewed by Joshua A. Herrington, January 18, 2022.

built on its carefully structured therapeutic design. The school starts with an initial assessment of the individual, which includes personal data collection, an in-person evaluation, and a treatment plan. The initial assessment allows the school to assess the individual's desire to improve, comfortability around the mustangs, and treatment goals. After the initial assessment, the subject begins the five level of mustang therapy at the American Mustang School. In Level I: Handling and Conditioning/Establishing Communication, the participant halts their mustang partner and conducts grooming for mindset, which introduces the individual to “two pathways of communication,” and the five-part series, which teaches the participant to communicate to the mustang appropriately and learn to self-reflect to understand success and failure in completing each task in the series. After the completion of Level I, the individual moves to Level II: Leadership and Relationship. The subject learns “servitude leadership” through successfully navigating four challenging obstacles and creating a willing partner out of the mustang. In Level III, is when the subject transfers from the ground to the saddle—the participant learns to properly saddle the mustang, and lateral flexion, which provides a ground tie for the mustang, promotes communication through the reins, and covers rein control. The subject also completes a new five-part series in the saddle, which includes turning the mustang left and right, moving the mustang forward and backward, and stopping. In Level IV: Focused Riding, the individual and the mustang must overcome unique obstacles around the American Mustang School. Once the subject and the mustang can complete all obstacles with clear focus and tranquility, the duo moves to the final level. The final level is Level V: Riding in True Unity, wherein the participant and the mustang interact with variables outside the confines of the school. By completing all the levels, the school aims to enhance and reintegrate the individual to themselves, relationships, and the world around them.

2. Avenues for Future Research

This description provides a starting point to inform military commands and medical professionals about mustang therapy, but there are still numerous areas to research to examine the efficacy of mustang therapy as a treatment modality for service members. This

section discusses potential lines of effort to increase understanding of mustang therapy. The hope is future research will first assess the American Mustang School's effectiveness in treating military members and then compare other therapy options to mustang therapy to provide the best therapy to service members. Ultimately, future research can promote an examination of other unique therapies.

a. Effectiveness of Mustang Therapy

Leveraging the American Mustang School, researchers can test the effectiveness of mustang therapy with the diverse military personnel that resides at Fort Bragg, North Carolina. Military commands could direct behavioral psychologists to select a specific number of various military members to attend mustang therapy at the school. Researchers could also select individuals to take part in another form of therapy and a control group for comparison. Many of the psychologists are familiar with conducting this type of research. Of particular note, the American Mustang School is in proximity to the "Research Triangle." The "Research Triangle" refers to the three prominent research universities of Duke, University of North Carolina-Chapel Hill, and North Carolina State University.¹⁰⁵ Researchers from these universities could provide an examination of the efficacy of mustang therapy for service members.

Researchers could investigate the effectiveness of the school's therapy by assessing pre-/post-measures, including clinical evaluations (reported symptom reduction by behavioral psychologists), self-reporting (participant surveys and interviews), and physiological data (using wearable devices that monitor physiological markers of stress). The research can collect data of the military member prior to the start of therapy, during, and after. Changes in the participant is a measurement variable for the researcher. Also, the wearables reduce the need for the researcher to interfere in the therapy because data collection is done by the device and displayed on a separate media device.

¹⁰⁵ "The Triangle," Research Triangle Regional Partnership, accessed February 24, 2022, <https://www.researchtriangle.org/the-triangle/>.

b. Advantages and Disadvantages of Mustang Therapy to Current Therapies Available to Military Personnel

Testing the validity of mustang therapy compared to other therapy is another potential area of research. Military members deserve the best treatment options to address mental health issues. Researchers can assist military commands in examining treatment options military members could engage in and that might positively affect the military community. Some variables that could be examined through the comparison are stigma, effectiveness, availability of treatment, rigid or flexible treatment design, cost, and duration of treatment. Providing comparison research of mustang therapy to other therapeutic options will ensure military commands are providing the best care for their people.

3. Closing Remarks

Mustang therapy is unique and new but has the potential to have a positive impact on military personnel. This in-depth articulation of mustang therapy is to inform military commands, leaders, and medical professionals, encourage additional research of mustang therapy for service members, and potentially promote adoption of the therapeutic program in the military community.

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