

Healing Horses: Can Equine-based Therapy Reduce Recidivism in Canada?

Emori Cumming

Mx. Dallas

CYSF 2025

Renert School

Contents

Introduction	3
Problem	
Recidivism Rates.	3
PTSD in Inmates.	4
Lack of Professional Research.	5
Method.	5
Solution.	5
Research Data	
The Body's Stress Response.	7
Fight or Flight.	7
PTSD and C-PTSD.	10
Equine Therapy?.	11
Effects of Equine Therapy on the Mind.	12
Effects of Equine Therapy on Incarcerated Individuals.	14
Other Approaches to Animal Therapy.	15
Other Approaches to Therapy.	18
Drug Trials	20
Survey Data.	22
Conclusion.	26
Acknowledgement.	28
Citations.	29
Appendix.	33

Introduction

In Canada, the recidivism rates have steadily been decreasing, the measures the Canadian government has put in place have proven to work. In this paper, I aim to explore the efficacy of equine-based animal therapy over other forms of animal therapy or clinical therapy. In addition, this paper aims to show why adding equine therapy as an addition to the programs already set in place helps to reduce recidivism rates. Furthermore, equine therapy has been proven effective in treating PTSD, and this paper aims to show a connection between PTSD, incarceration, and recidivism.

Equine Assisted Therapy (EAT) is an experimental treatment incorporating equines and equine- assisted activities into treatment plans for cognitive, behavioural, and sensory functioning. Not only this, but it also fosters positive growth and learning. It is designed to promote the development of different life skills needed to help to regulate emotions better and to improve psychosocial functioning of people in society. It has also shown the potential to demonstrate that trauma reactions can be managed without actually focusing on the trauma, but instead focusing on things such as connection building, empathetic reflections, relational reciprocity(the ability to work well with others), and respect (Nargath 2020).

Problem

Recidivism Rates

As previously stated, recidivism (most commonly referring to the act of committing another crime or coming into conflict with the criminal justice system (CJS) after having been previously incarcerated) has been reducing in the last 10 years. The overall reduction in recidivism in Canada has improved from 82.7% efficacy from the study in 2013-2014. To

88.65% efficacy in 2022-2023. This means Canada's actions to prevent recidivism rates have helped reduce recidivism by about 6% (5.95%). Canada achieved this through The Office of the Correctional Investigator (OCI). This group identifies issues of mutual concern in the federal correctional system, assisting the Correctional Service of Canada (CSC) in maintaining its promises to contribute to public safety and support offender rehabilitation. While the OCI provides an oversight function, the solutions the CSC put forward should be taken into consideration.

In the past couple of years, the CSC has implemented a variety of new initiatives, aiming to make rehabilitation easier and more accessible for inmates. (*Response to the 50th Annual Report, 2023*) Some of these initiatives include anti-racism, meaningful contact with offenders, Indigenous reconciliation, and promoting safe reintegration and rehabilitation (Response to the 50th Annual Report of the Correctional Investigator 2022 to 2023, 2023).

PTSD and Inmates

In addition, a study made in 2017-18 in a US prison found that out of 21,099 inmates, as many as 27% of men and 38% of women have PTSD (Mundt & Portales, 2018). Since horses can help first responders and military veterans with PTSD, it can be assumed that the same could be said for inmates.

Lack of Professional Research

There is a wealth of anecdotal and qualitative studies that show the effectiveness of the validity of equine-based therapy. However, there are few evidence-based studies. Existing

evidence-based studies have flaws such as low sample sizes, a lack of a control group, and a lack of counsellor-administered curriculum and/or assessments leaving research gaps (Nargath 2020).

Method

By using research I conducted last year on the benefits of equine therapy over other sorts of therapy, and by interviewing professionals, this paper aims to show the efficacy of equine-based therapy in comparison to other forms of clinical or animal therapy to reduce the impact of PTSD on the inmate, therefore hopefully reducing recidivism rates of inmates.

Solution

Reducing reincarceration rates results in fewer people in prison therefore reducing the amount of overcrowding, and allows the guards to be more focused on the inmates. In addition, the use of equine therapy as an additional approach to therapy, would be useful in most prisons to deal with PTSD. Typically, inmates within these settings need to be seen as strong and show no vulnerability, as it's the only way to survive. By implementing equine therapy it can help addresses inmates' lack of vulnerability by reducing the need to talk face-to-face and allows the inmate to gain a heightened sense of empathy and social awareness.

This process is achieved because horses are prey animals and they can synchronize their heartbeat with humans around them. This means they are able to . They can do this as their prey nature means if one of them spooks in response to a predator, they all have to spook in the same direction to increase the likelihood of survival. Not only this, but they can feel a person's heartbeat from approximately four feet away, meaning the inmate does not even have to be right next to the animal, and could instead watch. Not only are horses able to feel a heartbeat from a

distance, but their hearts themselves are around 13x the size of an average adult male heart. This size difference means the electromagnetic field is bigger, which is one of the things that allows them to synchronize their heartbeats with the surrounding creatures (S. Knight, Equine Therapy Facilitator, personal communication, December 23, 2024).

Research Data

The Body's Stress Response

To begin, what is a stress response, and when does it occur? A stress response occurs when physical or psychological stimuli disrupt homeostasis (a state of balance among the body's systems needed to survive and function properly). These stimuli are called stressors, physiological and behavioural responses change to exposure to such stressors, resulting in the stress response.

Stress by itself can be categorized into various types of stress based on duration, source, and response. They are as follows: acute stress a short-term stress; usually resulting from immediate stressors or difficult situations, or episode acute stress if acute stress is experienced frequently. Chronic stress occurs when a stressor persists over an extended period. Environmental stress occurs from adverse or challenging conditions in one's surroundings; however, this stress is not only limited to a natural environment but also to the social environment a person is in, such as their work environment. Psychological stress is the stress of cognitive or emotional factors, such as worrying, and negative thoughts, and usually takes the form of anxiety, rumination, or perfectionism. Physiological stress refers to the body's internal or external stressors (Chu et, al., 2024). Finally, traumatic stress, the one this study will go over most, is the stress after exposure to traumatic events, potentially leading to symptoms of PTSD.

Fight or Flight Response

Most people in society are familiar with the stress response of fight or flight, some people include the response freeze in this list, however, there are two more lesser-known responses

named fawn and flop. All of these are natural outcomes of fearful situations or extended periods of trauma.

Table 1

Different Stress Responses (The 5 F's)

Name of Response	Actions	Reactions
Fight	Becoming combative or defensive in response to the stressor.	This response includes an explosive, unpredictable temper, physically aggressive actions, constant defence, and a “my way or the highway” mindset
Flight	Trying to or abruptly remove themselves from the situation.	This response usually includes symptoms of panic when motionless, micromanaging, a constant feeling of being trapped, and can present as anxiety or panic attacks.
Freeze	When the body shuts down, the person becomes	This response usually presents as a feeling of

	withdrawn and unable to make decisions	numbness, shutting down, giving up easily, and sometimes mistaken for depression.
Fawn	When an individual moves closer to the source of trauma, trying to appease or win over the stressor.	The traits of this trauma response are people pleasing, dissociating or spacing out, being overly polite, and having a hyper aware notice of other people's emotions and needs.
Flop	This response includes the body collapsing, including blacking out, or fainting	his response could be associated with the loss of control over bodily functions, an appearance of disengagement, and complete submission

Note. The information from this table is taken from *It's so much more than just 'fight or flight'* (n.d.).

PTSD and C-PTSD

PTSD, or post-traumatic stress disorder, is categorized as a mental health condition. These are usually caused by stressful, traumatic events, either being a part of it, or witnessing it. The symptoms may include flashbacks, nightmares, anxiety attacks, and uncontrollable thoughts about the event (*Post-Traumatic Stress Disorder (PTSD) - Symptoms and Causes*, 2024). Even before the term PTSD became more prevalent in society, it was recognized as a psychological condition. A study during 2004 states:

[B]efore 1980, posttraumatic syndromes were recognized by various names, including railway spine, shell shock, traumatic (war) neurosis, concentration-camp syndrome, and rape-trauma syndrome. The symptoms described in these syndromes overlap considerably with what we now recognize as PTSD. (Sher, 2004, p.1)

C-PTSD

Complex post-traumatic stress disorder or C-PTSD can be displayed through anxiety, flashbacks, avoidance, impulsivity, or difficulties in sustaining relationships. C-PTSD differs from PTSD as the length of trauma, and symptoms may differ. Traditionally, experts thought PTSD developed from short bursts of trauma (Karatzias et al., 2018). These events could be from a car accident, natural disaster, or other traumatic events. As the research developed, however, the researchers realized that people who experience trauma over an extended period of time, or repeated trauma, tend to have additional symptoms (Karatzias et al., 2018). Both of these responses to stress include both psychological and behavioural stress responses.

For example, a person with C-PTSD may have developed this from domestic violence, wars, or being a victim of sexual abuse (Karatzias et al., 2018). The idea of C-PTSD being its own condition is debated across the field of psychology. For example, in 2019, The World Health

Organization listed C-PTSD as a valid diagnosis (Karatzias et al., 2018), while the American Psychiatric Association did not. Still others believe the trauma responses of PTSD, C-PTSD and even borderline personality disorder (BPD) exist on a spectrum of trauma-related mental health conditions. (*CPTSD (Complex PTSD)*, n.d.).

PTSD in Inmates

People involved with the criminal justice system, whether it be the people detaining the inmates or the inmates themselves, are frequently exposed to violence and traumatic experiences. These events and experiences lead to the potential symptoms of PTSD. The participants represented in this study were from prisons from 20 different countries, including: Brazil, Iran, Canada, the United Kingdom, Turkey, the Netherlands, Australia, France, Germany, Iceland, the United States of America, India, Chile, Ireland, South Africa, New Zealand, Switzerland, Spain, and France MQ. Out of these samples, 21,009 prisoners were tested for potential markers of PTSD. From this study, they concluded that up to 27% of males had markers of PTSD, and 12%-38% of females had markers of PTSD (Baranyi et al., 2018). The existing evidence shows high levels of PTSD among imprisoned people, but more specifically women, especially in marginalized groups or countries (Baranyi et al., 2018).

Equine Therapy

While researching the topic, the terms “equine assisted therapy”, “equine assisted learning”, and “equine assisted psychotherapy” were brought up. While they are different, for the purposes of this paper they will be referred to as “therapy” unless otherwise stated.

Effect of Horses on the Mind

In addition to EAT, equine assisted-psychotherapy (EAP) is also an experimental treatment. While similar to EAT, EAP is more focused on the psychological aspects of equine-based programs. EAP is designed so participants are able to learn more about themselves by participating in different activities with horses followed by a reflection with therapists about that specific activity (Ruegg, 2023). For example, in the CanPraxis program, there is a couples therapy exercise where participants are paired up and one partner is blindfolded, while the other partner is not. Both participants hold onto a lead rope connected to a horse. The sighted participant must guide the blindfolded person and the horse through the given obstacle. This exercise was designed to explore the difficulties with having PTSD and effectively communicating. When someone has experienced PTSD, their ability to communicate gets skewed, as PTSD shifts their view on the world, making their world seem more high-pressure. This leaves their nervous systems on edge, meaning little mistakes often blow up and become larger than they actually are. The horse is used as a control group in these activities, as they are able to reflect the feelings the participants have, allowing the non verbal communication to be shown. This is repeated four times, one time with strangers of the same gender to see what the participants act like around strangers, who have no emotional baggage, and once with their partner or spouse. This way, the therapist gets to see how the participants interact with strangers, and how they interact with their partner. This practice helps to identify issues such as anxiety, depression, PTSD, relational problems, and communication challenges the couple may face (S. Knight, Equine Therapy Facilitator, personal communication, December 23, 2024).

Research has shown, certain benefits of EAP is the ability to work in outdoor areas or other large arenas. The research has suggested physically moving with and among the horses

helps the client to feel grounded, improving things such as their stress tolerance, emotional awareness, and problem solving skills. This is due to the nonverbal cues horses can pick up on. As prey animals, they are sensitive to emotions, and because of this, their body language reflects the patient, providing what some call “honest feedback” (Ruegg, 2023). This ability allows horses to pick up on emotions such as anger, anxiety, or distress. This not only allows the therapist to identify any hidden emotions, but also allows the client themselves to understand and address emotions they themselves may not have recognized.

The analogy of a mirror can be used, as the horses reflect the client as they actually are and not the way they seem, or want to be perceived. Researchers have stated this way of approaching therapy is powerful, as the patient must actively make changes during the session to complete the task properly (Ruegg, 2023). An example of this type of exercise would be groundwork, a fundamental part of EAP. This allows individuals to directly interact with the horses without any previous knowledge of equine activities. Groundwork can include things such as grooming, leading the horse, and observing the horse's interactions. These activities not only help the clients build trust and self confidence, but also provide them with emotional awareness, regulation, and the ability to problem solve (S. Knight, Equine Therapy Facilitator, personal communication, December 23, 2024).

The disadvantages of EAP include factors such as people being uncomfortable with large animals and the costs of horses as they need large amounts of space and they have high maintenance needs. Programs such as CanPraxis have made equine therapy more accessible to veterans and first responders by providing programs at no cost to participants.

The CanPraxis approach also uses the horses to create an experiential understanding of the therapeutic concepts being presented. This allows participants to walk away with a deeper

grasp of the material in a significantly shorter time frame with much higher (93%) self-reported efficacy rate (S. Knight, Equine Therapy Facilitator, personal communication, December 23, 2024). Overall however, EAP will be a more expensive option as the client is paying not only for the therapist's time, but also the horses themselves (S. Knight, Equine Therapy Facilitator, personal communication, December 23, 2024).

Effects of EAP on Incarcerated Individuals

A study performed in New York (2014) found several key roles of human-horse relationships in a prison context. This study researched the emotional aspects, emphasizing the value of providing inmates with opportunities for companionship, aiding in processing relational issues and enhancing personal competencies. In addition to this, the program allows inmates to participate in meaningful activities, helping them develop prosocial skills and mature behaviour. Social learning outcomes show the participants projected human interactions onto horses, allowing for deeper social awareness and learning of other social interactions. Finally, the program helps the inmates acquire vocational skills that could be useful outside of prison when released. Introducing the interventions to bridge the gap between program experiences and post-release vocations could further enhance the program's effectiveness (Bachi, 2014). This study helped to support the connection between human-horse relationships and their effectiveness and uses for inmates.

More recently, a study by Robinsion-Edwards et al. in 2019 focused on the potential of equine-assisted psychotherapy (EAP) as a therapeutic solution. The study employed both a phenomenological (the study of the development of human consciousness and self-awareness as a part of philosophy) and an Interpretative Phenomenological Analysis (IPA) to understand the participants' experiences in a Category D (low security) male open prison in England

(Robinsion-Edwards et, al., 2019). Participants also included people from a nearby Category C prison facility. This study aimed to improve the emotional regulation of individuals with histories of drug and alcohol abuse. The study found the connection between EAP and positive experiences from participants, with the resulting patients achieving their goals and gave them a heightened sense of confidence as they were able to feel achievement (Robinsion-Edwards et, al., 2019).

Other Approaches to Animal Therapy

The main other forms of animal assisted therapy found during research was Canine assisted-psychotherapy (CAP). This approach includes specially-trained therapy dogs in the counselling process. As dogs have a sense of unconditional love and loyalty, these animals are helpful in psychotherapy. The dogs are selected for two traits. The first trait is called biddability, referring to their willingness to accept human leadership, and their nature to prioritise human companionship (Ruegg, 2023). This ability allows them to pick up skills from obedience training, or other forms of social interactions, allowing them to become more reliable and trustworthy. The second trait is effectiveness, this means the dogs chosen have a heightened sense of curiosity, allowing them to navigate unfamiliar situations when performing therapeutic activities (Ruegg, 2023). As CAP is a flexible way of approaching therapy, it makes them suitable for different settings. Whether it be inside, outdoors, with one person on many. These animals are able to adapt to any setting and provide therapeutic support. Some activities a patient may have to perform with the dog may be things as simple as petting, walking or playing with the dogs, to incorporating the dogs into their day to day life (Ruegg, 2023). Of course, like any

system CAP is not perfect. For some individuals with allergies, have fears of bigger dogs, or have experienced animal abuse might not be suitable for such a program (Ruegg, 2023).

For example, the PADS PTSD program supports first responders, members of the military and veterans. They train dogs to facilitate wellness and social reintegration in a variety of different ways. The dogs that are chosen for this program usually show the natural ability to respond positively to the emotions of human beings. Usually, they are well versed in sensing emotions such as stress, anxiety, and fear. They usually work with one person and are trained to interrupt the physical signs of potential stress, flashbacks, or panic attacks. Not only this, but they are also able to ease symptoms of hypervigilance, when people become preoccupied by possible threats. They can help the person through this by placing their body close to the human, applying pressure with their body, while standing beside them in crowded areas such as grocery stores. This allows the human to ground themselves and return back to a normal state of emotional regulation. PTSD Service Dogs can be any breed, however they are usually Labrador Retrievers or Golden Retrievers (*Serving Those That Served Us*, n.d.). This is probably due to the fact these specific breeds are gentle in nature, patient, and calm in stressful environments. They also have an empathetic nature, allowing them to sense emotions and instinctively providing comfort (Kauffman, 2024).

Table 2

Comparing Equine and Canine Assisted Psychotherapy

	Dogs	Horses
Accessibility	5	3.5

Resource Use	3	1
Training	2	1 or 5 (Depending on the experience of the facilitator)
Costs	3	1
Other Health Concerns	4	2 or 4
Time it takes to build a bond	5	5

This is not an entirely equal comparison because while all these types of therapies all use animals, they approach therapeutic issues from extremely different perspectives. Additionally, the way the animal helps the participant varies greatly based on if they have a prey or predator mindset. Both animal therapies may have very useful benefits, however all for very different parts of the mental health journey (S. Knight, Equine Therapy Facilitator, personal communication, December 23, 2024).

Because of the different approaches to the therapies, comparing equine therapy against canine therapy while at first seems useful, it is not a just comparison. While canine therapy is good for patients who might need companionship, or support in every-day life. Equine therapy is more effective for a deeper therapy session.

Other Approaches to Therapy

When treating PTSD, the most common therapies include Cognitive Behavioural Therapy (CBT), Acceptance and Commitment Therapy (ACT), and Eye Movement Desensitization and Reprocessing (EMDR) (Leanne MSW RSW, Therapist, personal communication, February 7, 2025).

Table 3

CBT, ACT, and EMDR

Feature	Cognitive Behavioural Therapy (CBT)	Acceptance and Commitment Therapy (ACT)	Eye Movement Desensitization and Reprocessing (EMDR)
Focus	Challenging negative thoughts and beliefs, identifying and practicing coping mechanisms	Accepting difficult emotions, focusing on values, and taking committed actions	Reprocessing traumatic memories to reduce their emotional intensity
Techniques	Visualization of worst-case scenarios, breaking points, desensitization	Techniques Mindfulness, cognitive defusion, values clarification, committed action	Bilateral stimulation (eye movements), guided reprocessing of traumatic memories

		planning	
Target Conditions	Phobias, eating disorders, addiction, depression, sleep disorders, OCD, bipolar disorder	Depression, anxiety, intrusive thoughts, trauma, loss, self-doubt, social phobias, substance use	Trauma, PTSD, anxiety, stress-related disorders
Approach	Change-oriented, focuses on identifying and modifying negative thoughts and behaviours	Acceptance-oriented, focuses on accepting difficult emotions and moving towards a values-driven life	Reprocessing-oriented and focuses on reducing the emotional intensity of traumatic memories
Key Concepts	Cognitive restructuring, behavioral activation, exposure therapy	Mindfulness, values, committed action	Bilateral stimulation, reprocessing, adaptive information processing
What is it suited for?	Individuals seeking to target specific goals and improve coping	Suitable for Individuals wanting to live a more	Individuals experiencing trauma, PTSD, or other

	skills	mindful and values-driven life	stress-related disorders
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Note. The information in this table was taken from Himidian (2025).

Drug Trials

In more recent years, the drug MDMA (3,4-Methylenedioxymethamphetamine, commonly known as ecstasy) has been introduced as another experimental treatment for PTSD (Morland & Woolley, 2025). MDMA-Assisted Therapy (MDMA-AT) is a combination of psychotherapy and the drug MDMA (Morland & Woolley, 2025). The therapeutic effects of the drug can include reducing fear, increased social engagement, a higher sense of openness, and an improved sense of empathy. The drug is used to target memory reconsolidation and fear, allowing the patient to gain more perspectives and more positive experiences (Morland & Woolley, 2025). In addition to PTSD, MDMA is being investigated for its potential to treat other things such as eating disorders, anxiety, and alcohol and substance abuse (Morland & Woolley, 2025).

MDMA treatment is used to help the patient approach traumatic memories in a different way. As the drug alters the patient's mood, the therapist is able to explore the memories with a different outlook. The drug is able to reduce the patient's fear allowing them to be more empathetic, and more receptive to the therapy. While the drug seems to work, there are some risks. As the drug alters the person's mind, certain ethical issues are raised. The way the clinical trials work is the therapist gives the patient different sessions to gain a baseline on how the patient reacts. Then in one session, they administer the drug and the therapist sees if the patient is responsive. It is thought that after therapeutic MDMA use, a period of neuroplasticity happens.

During this, the memory is refilled in the brain differently with a different context and less emotional impact. While the drug seems to work for some, it is still considered an emerging treatment and not yet available . Finally, certain ethical issues arise such as the performance of a psychological therapy while the patient is under the influence of drugs and there are some known adverse effects (R Shore, MPA, PHD, Assistant Professor, Department of Psychiatry, Queen's University, Interim Assistant Scientific Director, personal communication, February 20, 2025).

Another thing to keep in mind with MDMA treatment, is the difference between the psychedelics themselves and psychedelic treatment. While psychedelics can be bought on the streets, it is not advised, safe, and in most cases legal. Despite the potential risks of psychedelics, under clinical settings, they can be used as a tool, rather than a form of harm. This form of therapy needs a range of safety precautions. From extra staff on hand, to the long hours needed, psychedelic treatment takes up resources. In addition to straining time and resources, this form of treatment also is taxing on the patient's wallets. As the legal use of this drug for therapy would require many different sessions with a trained clinician, the estimates of the cost of recent MDMA trials have been predicted to be over \$11,000 per patient. This not only leads to concerns about businesses trying to make a profit, but also brings into question the value of this treatment overall (*Psychedelics Are Cheap. Psychedelic Treatment Is Not.*, n.d.).

Since the drug aims to open up the patient to forms of therapy, I believe equine therapy accomplishes a similar effect as they both involve using a different medium? than the standard. Both the drug and the horse allow the patient to approach the traumatic memories from the past with a more open, and relaxed mind.

Survey Data

The survey was divided into three sections. The first is demographical data such as age groupings, gender, race, and level of education. The next section was their position, which included them specifying their occupation and rank. Finally, the ranking section included a list of ranking questions. Participants were asked to rank a list of 10 possible childhood factors (11, including an option for “other”), possibly relating to crime later in life (Cumming, 2024).

Demographical Data

Out of the 45 people, the responses varied across different provinces and territories; 46.7% of participants were from British Columbia, 22.2% of the participants were from Alberta, 8.9% of participants were from Ontario, 6.7% of participants were from Saskatchewan, 4.4% of participants were from Quebec. Nova Scotia, Yukon Territories, Newfoundland and Labrador, Manitoba, and Nunavut had a 2.2% representation in the sample (Cumming, 2024).

The responses were spread out over different age groupings. 22.2% of the participants were 18–24 years old, 11.11% of the participants were 25–34 years old, 6.67% of the participants were 35–44 years old, 15.56% of the participants were 45–54 years old, 46.67% of participants were 55–64 years old, and 17.78% of the participants were 65+ years old (Cumming, 2024).

The racial or ethnic identities of the participants were 93.33% of participants identified as white, 2.22% of participants identified as Japanese, and 11.11% of participants identified as Indigenous (Cumming E, 2024). The participants were given the option to provide multiple ethnic identities, thus, the total percentage is over 100% (Cumming, 2024).

The participants' highest level of education was as follows; 28.89% of participants had a high school degree, 33.33% had an undergraduate degree, 28.89% had a graduate degree, and 8.89% had a postgraduate degree (Cumming, 2024).

The genders of the participants were evenly split, with 55.56% being female, and 44.4% as male (Cumming, 2024).

Occupational Data

When asked about their occupation, 97.78% of the participants were from the RCMP, 2.22% of the participants were with other police forces, and 0% of the people with other occupations who deal with criminal justice completed the form (Cumming, 2024). The ranks of the participants varied; 4.55% of the participants were assistant commissioners, 18.18% of the participants were staff sergeants, 13.64% of the participants were sergeants, 11.36% of the participants were corporals, 20.45% of the participants were Constables, 29.55% of the participants were retired, and 2.27% of the participants were reserve constables on an Indigenous reserve (Cumming, 2024).

Ranking Data

Using data collected from my study last year, it is shown childhood trauma plays a role in shaping someone's potential to commit a crime. My previous study's results were as follows: 45 participants were asked to rank a list of 10 possible childhood factors (11, including an option for "other"), possibly relating to crime later in life. These included the lack of a maternal figure, lack of paternal figure, physical abuse, exposure to substance usage, family history of mental illness, race, and ineffective parental behaviour even when parents are present (this includes lack of

supervision, the parent is emotionally unavailable, low attachment to family, etc), peer delinquency (this includes reinforcement of deviant norms, peer pressure, searching for a sense of belonging, etc), and neighbourhood disadvantage (where they group up i.e. exposure to poverty, lack of community, violence, and a sense of hopelessness) (Cumming, 2024). The results were as follows in Table 3.

Table 3

Factors Affecting the Likelihood of Committing a Crime as an Adult

Factor	Average Rank	% of Participants who ranked in the top 3 factors
Ineffective parent behaviour	3.51/11	57.78%
Physical abuse	4.09/11	48.89%
Exposure to substance usage	4.47/11	40%
Peer delinquency	5.27/11	26.67%
Neighbourhood disadvantage	5.47/11	33.33%
Lack of maternal figure	6.02/11	28.89%
Lack of paternal figure	6.04/11	20%

Family history of mental illness	6.22/11	22.22%
Financial difficulties	6.44	15.56%
Race	9.78/11	0%

Note. The information in this table was from my previous study from 2024 (Cumming).

The option “other” was given, allowing participants to choose something not listed, the two most common other factors were lack of education, and being put into foster care, group homes, and adoption (Cumming, 2024).

Using the results from this data, it can be concluded the continuous rankings of ineffective parent behaviour, abuse, and exposure to substance usage being ranked higher than factors such as race, or the lack of a maternal/parental figure shows the differences between nature and nurture in the legal system (Cumming, 2024). Not only this but the potential for these individuals to develop PTSD either before, after or during their time in the legal system.

Conclusion

In conclusion, while the rates of recidivism are going down, the use of equine therapy is still important to consider. As an emerging field of research, their large hearts, and ability to sync their heart rate, horses prove to be more effective therapy techniques over other forms of therapy such as canine therapy, drug therapy, and clinical therapy. Since many inmates have markers of PTSD and the use of equine therapy to treat PTSD has been studied and proved effective. This method of treatment allows for the inmates to reduce the stigma around mental health, and allow the inmates to become more self-aware, and gain more empathy.

To add to these measures, the research concluded that while equine therapy is highly effective, other forms of therapy such as canine therapy may be more accessible to the general public. However, since the two different branches of animal therapy approach therapy in different ways, if the prison system had access to equine therapy, I believe they would be successful in reducing PTSD in prisons, and also promote rehabilitative behaviours. Within this study, there are some potential sources of error. This paper was written with the assumption that if equine therapy works for veterans with PTSD, it translates to anyone with PTSD; research into this topic was limited to English sources readily available in North America, which potentially limits the range of perspectives. In the survey portion of the paper there are several potential sources of bias in this survey worth considering. Firstly, participants were mainly contacted through the same mutual acquaintance, which means they may not be a representative sample of law enforcement officials. In addition, Statistics Canada only shows reported crime, this could mean crime isn't increasing, but the reporting of crime is. In addition, the majority of participants were from the RCMP, leading to potential perspective bias even within law enforcement as other groups, such as victims, criminals, or family and friends of criminals may

have a different perspective. When asked about ancestry, over 90% of respondents responded as having white ancestry, which might also limit the range of perspectives.

Finally, using the research from my previous study, another way to reduce recidivism rates would be to introduce various programs earlier in life. In modern times, there are more resources available to youth, such as youth distress centres and call lines. Being offered these opportunities at a young age will hopefully help reduce the impact of these risk factors and result in a lower probability of committing crimes later in life. In addition, legislative measures such as the Youth Criminal Justice Act (YCJA) aim to reduce the reincarceration of youth in Canada, and have been successful in their goals to promote rehabilitation over reincarceration. Not only are the measures to reduce youth offenders effective, adult support is effective as well. Programs such as the John Howard Society, and Elizabeth Fry Society aim to help and support adult offenders.

In future investigations, I hope to explore the topic of equine-based therapy further, and try to make programs for equine therapy more accessible to the public. One of the main problems with making this type of therapy more available are the resources, and space it needs to work. In addition, potentially interviewing more people who have personally experienced a treatment of equine therapy, would allow consideration of a wider range of perspectives.

Acknowledgements

I would like to acknowledge the contributions from the following people. Dr. Shahin, Dr. Soares, Ms. Maddison, and Mx. Dallas for support and guidance developing the project. I'd also like to thank Brenda Abbey, Steve Chritchley, and Leanne Shannon for helping me with the research, and Sarah Knight, and Dr. Ronald Shore for allowing me to interview them. Finally, I would like to thank Melanie Noel for her indirect help by authoring the CanPraix family program, and inspiring this project.

Citations

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Appendix

Rubric for Table 2

Accessibility: Referring to the ability to access such resources

Little to no accessibility = 1-2

Moderate accessibility = 3-4

Easily accessible = 5

Resource Use: Referring to the amount of resources the individual/organization needs to use

Little to no resources are used = 5

Moderate resources are used = 3-5

High amount of resources used = 1-2

Training: Referring to the amount of time it takes to train the animals

Little to no training = 5

Moderate training required = 3-4

High amount of training required = 1-2

Costs: Referring to the amount of money the individual/organization needs to spend

Little to no money = 5

Moderate amount of money = 3-4

High amount of money needed = 1-2

Health Concerns: Referring to any health/safety concerns

Little to no concerns = 5

Moderate concerns = 3-4

High concerns = 1-2

Time it takes to build a bond: Referring to the amount of time the individual must spend with the animal

Low amounts of time = 5

Moderate amounts of time = 3-4

High amounts of time = 1-2