Equine Programs for Military Veterans and RCMP Officers with Occupational Stress Injuries: A Qualitative Analysis Programmes de thérapie facilitée par le cheval auprès d'anciens combattants et d'agents de la GRC souffrant de traumatismes liés au stress professionnel : une analyse qualitative

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ABSTRACT

Alternative approaches to mental health and support programming for military veterans and for officers of the Royal Canadian Mounted Police (RCMP) with occupational stress injuries have recently received attention in the field of post-traumatic stress. The purpose of this study was to evaluate the experiences of military veterans and actively serving RCMP officers with occupational stress injuries who participated in an exploratory study using an equine-assisted learning program. Using a focus group research design, 20 veterans and five RCMP officers were interviewed about their experiences in a 4-week equine-assisted learning program. A thematic content analysis, following Braun and Clarke's (2006) method, revealed five main themes: (1) appreciation for the value of learning new skills, (2) connection with the horse in terms of the human-animal bond, (3) self-regulation and learning to "speak horse," (4) sense of accomplishment and competence, and (5) transferable skills to everyday life. The qualitative findings of this study provide support for the use of equine-assisted learning programming with military veterans and RCMP members and demonstrate potential as an alternative therapeutic intervention for occupational stress injuries in these populations.

résumé

Dans le domaine du stress traumatique, on s'est récemment intéressé aux autres façons d'aborder la santé mentale et les programmes d'aide aux anciens combattants et aux membres de la Gendarmerie royale du Canada (GRC) souffrant de traumatismes liés

au stress professionnel. L'étude avait pour but d'évaluer les expériences d'anciens combattants et d'agents de la GRC actuellement en service et souffrant de traumatismes liés au stress professionnel qui avaient accepté de participer à une étude exploratoire sur le recours à un programme d'apprentissage facilité par le cheval. Dans le cadre d'un plan de recherche impliquant des groupes de concertation, on a interviewé 20 anciens combattants et cinq agents de la GRC au sujet de leurs expériences vécues durant un programme d'apprentissage facilité par le cheval échelonné sur 4 semaines. Une analyse thématique du contenu, selon la méthode de Braun et Clarke (2006), a permis de dégager cinq grands thèmes : (1) appréciation de la possibilité d'acquérir de nouvelles habiletés, (2) le lien fondamental humain-animal, (3) autorégulation et apprentissage du « langage équin », (4) sentiment d'accomplissement et de compétence, et (5) habiletés transposables dans le quotidien. Les résultats qualitatifs de cette étude viennent appuyer le recours à des programmes d'apprentissage facilités par le cheval auprès d'anciens combattants et de membres de la GRC et confirment le potentiel de cet autre type d'intervention thérapeutique dans le cas de traumatismes liés au stress professionnel dans ces populations.

Serving in public safety predisposes employees to operational stress injuries (OSIs) (VanTil et al., 2018). The Royal Canadian Mounted Police (RCMP) and the Canadian Armed Forces are examples of such public safety careers. As of March 31, 2020, Veterans Affairs Canada (VAC) "estimated the total Veteran population in Canada to be 629,300, consisting of 32,100 War Service (WS) Veterans and 597,200 Canadian Armed Forces (CAF) Veterans" (VAC, 2020). In their 2010 health study, VAC stated that "about 24% [of veterans] reported they had a diagnosed mental health condition such as PTSD, depression or anxiety. Of those with a diagnosed mental health condition, 95% also had a chronic physical health condition" (VAC, 2021). A health report by Statistics Canada has compared the health of two eras of veterans with the health of Canadians. They reported that "recent-era veterans had a higher prevalence than the Canadian general population of many more indicators" such as "self-rated mental health [concerns], depression and anxiety" (VanTil et al., 2020, p. 20). As Thompson et al. (2016) concluded in their findings from four cross-sectional Canadian health surveys, "Recent Veterans had a higher prevalence of mental health problems than the general Canadian population, earlier-era Veterans, and possibly the serving population," and moreover, survey results pointed to the need for "strong militaryto-civilian transition support and access to effective mental and physical health services" (p. 70). In response to that call to action, veteran transition programs are being developed and are currently being delivered across Canada. Additionally, organizations and centres that offer support to veterans are developing alternative modes of therapy and intervention. In this vein, equine-assisted therapy intervention programs have been developing in Canada, the USA, the UK, and Australia as a means to support veterans who are experiencing occupational stress injuries (Arnon et al., 2020; Romaniuk et al., 2018). According to VAC,

An operational stress injury (OSI) is any persistent psychological difficulty resulting from operational duties performed while serving in the Canadian Armed Forces or as a member of the Royal Canadian Mounted Police. It is used to describe a broad range of problems which include diagnosed psychiatric conditions such as anxiety disorders, depression, and post-traumatic stress disorder (PTSD) as well as other conditions that may be less severe, but still interfere with daily functioning. (VAC, 2021)

Using an exploratory approach, we sought to investigate the use of one alternative mode of therapy with military veterans and with members of the RCMP to understand further the utility of such programming for public safety personnel namely, an equine-assisted learning program.

Definition of Terms

Several terms have been used to describe equine-type mental health programs, but there is a general confusion in the field when descriptions of equine programs are described in research. For clarity, we are using terms that describe the most common equine mental health approaches currently being used as described in the literature on equine-facilitated wellness (see https://www.equinefacilitatedwellness.org). In a review of the literature on equineassisted psychotherapy research by Lee et al. (2016, p. 226), the following terms are defined:

- equine-assisted therapy/psychotherapy (EAT/EAP), involving a mental health practitioner and an equine specialist working together and incorporating at least one horse to help clients address treatment goals; EAP includes unmounted activities only and was developed by the Equine Assisted Growth and Learning Association (EAGALA, 2015)
- equine-facilitated psychotherapy (EFP), involving a mental health practitioner and an equine specialist working together and incorporating at least one horse to help clients address treatment goals; EFP can include mounted and unmounted activities and was developed by the Professional Association of Therapeutic Horsemanship International (PATH Intl., 2012)
- equine-assisted learning (EAL), involving a mental health practitioner and an equine specialist working together and incorporating at least one horse to help clients address learning goals; EAL includes unmounted activities only and was developed by EAGALA (2015)
- equine-facilitated learning (EFL), involving EFL practitioners focusing on learning goals that may be offered by one practitioner or by a team using both mounted and unmounted activities; EFL practitioners may be teachers, equine specialists, equestrian instructors, mental health practitioners (e.g., clinical social workers, counsellors, and psychologists) or life coaches and was developed by PATH Intl. (2012)

According to Lee et al. (2016), "The four approaches vary in terms of their goals; EAL and EFL focus on learning goals (e.g. problem-solving abilities and team building), while EAP and EFP address treatment goals (e.g. treating depression and trauma)" (p. 226).

The Professional Association for Equine Facilitated Wellness (n.d.) offers certification in the following three areas as described on their website:

- Mental health professionals are credentialed in a mental health field and are members of a professional association. They have training and experience in the field of equine-facilitated wellness as well as cross-training in equine behaviour and safety. These practitioners work with an equine professional or, depending on their expertise, may work with clients without the assistance of an equine professional.
- Equine-facilitated learning professionals have credentials and experience in areas such as education, nursing, life coaching, team building, leadership training, and literacy training and may be members of a professional association. They have training and experience in the field of equine-facilitated wellness (EFW) as well as cross-training in equine behaviour and safety. They partner with equine professionals when engaging in EFW work with clients. However, depending on their scope of practice and levels of expertise, some work with clients may be done on a one-to-one basis without the presence of an equine professional.
- Equine professionals have credentials and experience in therapeutic work with horses as well as cross-training in mental health, human services, and/or education fields. These professionals may work in different capacities with a variety of clients depending on their scope of practice and levels of expertise.

Our study falls under an EAL, and the members of the team were mental health professionals as described above by the field of EFW. The registered clinical psychologist who facilitated the programs has advanced horsemanship training skills and is trained in psychological trauma. She provided support to military veterans and to RCMP members as they progressed through the program. She made herself available to assist participants and to ensure their safety if they became overwhelmed. As this program's focus was on equine learning and not on equine psychotherapy, we added the psychologist to the team to assist in facilitating program protocols and to oversee participant safety.

Review of the Literature on Equine-Assisted Interventions

Alternative treatment programs such as equine-facilitated programs have emerged to assist veterans and RCMP members in handling their challenges with OSIs. In particular, there have been a few systematic reviews of the scientific literature on the efficacy of equine-assisted interventions (Germain et al., 2018; Kendall et al., 2015; Kinney et al., 2019; Nimer & Lundahl, 2007; Selby & Smith-Osborne, 2013; Staudt & Cherry, 2017).

Germain et al. (2018) concluded in their systematic review of eight quantitative studies that animal-assisted therapy is "an efficacious treatment for trauma" (p. 141). These authors excluded 53 qualitative studies from their systematic analysis, and no veteran samples were part of their review. Kendall et al. (2015) reviewed 15 empirical studies that employed equine-assisted interventions. The majority of the studies had a sample size of 13, but only five studies were delivered by a mental health professional. The authors found that equine-assisted interventions hold promise for children and youth with a variety of health conditions, but again, no studies in their review included veteran samples. Staudt and Cherry (2017) reviewed nine equine-facilitated therapy studies-four studies with children with neurophysiological conditions and five studies with adults, one of which included combat veterans. The authors stated that from pre-treatment to 12-week follow-up, PTSD symptoms decreased dramatically. They concluded that there was support for equine-facilitated therapy for children and youth and for adults with post-traumatic stress. However, Selby and Smith-Osborne (2013) reported in their review of the literature that the findings on the efficacy of equine-assisted therapies were mixed and difficult to interpret due to the lack of rigorous research designs, the use of small sample sizes, and the use of inappropriate control groups. Nimer and Lundahl (2007) conducted a meta-analysis of 49 animal-assisted therapies (AAT) and found "moderate effect sizes in improving outcomes in four areas: Autism-spectrum symptoms, medical difficulties, behavioral problems, and emotional well-being.... AAT shows promise as an additive to established interventions" (p. 225). Finally, Kinney et al. (2019) found in their systematic mapping review of EAI for veterans that of the six studies that met their inclusion criteria, these studies "yielded promising results." In most cases, descriptions of the interventions lacked detail. They concluded that future research on equine-assisted interventions needs to target psychosocial outcomes to determine program efficacy and theoretical development of equine-assisted interventions by "describ[ing] the participants, components of the intervention, factors contributing to attrition, and optimal dose-response relationships" (Kinney et al., 2019).

The findings of these six recent systematic reviews suggest support for equinefacilitated interventions for children, youth, and adults. They also recommend further research to understand the effects of equine-assisted interventions for those with mental health concerns. The limitations of these systematic reviews are that few included veteran populations (with the exception of Staudt & Cherry, 2017, with one veteran; Kinney et al., 2019), the sample sizes were small for quantitative research designs, very few used random assignment or a comparison group, few used longitudinal research designs, and only one study was included that utilized a qualitative research design. We now review six current research studies with veterans using an equine-assisted approach to treat mental health concerns such as post-traumatic stress, anxiety, and depression. Lanning and her colleagues (Lanning & Krenek, 2013; Lanning, Wilson, Krenek, & Beaujean, 2017; Lanning, Wilson, Woelk, & Beaujean, 2018) have conducted the most extensive research on therapeutic horseback riding with veterans diagnosed with PTSD. Therapeutic horseback riding differs from EAT and EFT in that it is an equine-assisted activity that promotes the cognitive, physical, emotional, and social well-being of individuals with special needs. However, in Lanning and Krenek's (2013) research, they employed PATH Intl., an international equine service for heroes program. Lanning and Krenek (2013) collected data using an exploratory mixed-methods design over a 24-week period with 13 veterans who received horsemanship training in 1- to 2-hour sessions once a week. They found increased sociability, a reduction in isolation, increased trust in others, lower depression scores, reported higher levels of health and energy, and a reduction in emotional interference.

Lanning, Wilson, Krenek, and Beaujean (2017) used a mixed-methods design again when they investigated the effect of therapeutic horseback riding on PTSD symptoms, quality of life, and functioning as described in the International Classification of Functioning, Disability and Health model established by the World Health Organization (2001). This program was offered over 8 weeks to 51 veterans and active duty service members. Data was collected over four time intervals of pre-intervention: at 4 weeks, at 8 weeks, and 2 months after the intervention. "The study findings revealed clinically significant decrease in PTSD symptoms, improved social functioning, vitality, less interference of emotions on daily activities, and increased participation" (Lanning, Wilson, Krenek, & Beaujean, 2017, p. 259). In the qualitative component of the study to assess behavioural change, the authors found four main themes: improved confidence, trust, acceptance of self and others, and gratitude.

Lanning, Wilson, Woelk, and Beaujean (2018) then examined a therapeutic horseback riding program for veterans with combat-related post-traumatic stress. Their aim was to assess levels of post-traumatic stress, depression, and quality of life among veterans using a comparison group of 38 veterans receiving treatment as usual and a treatment group of 51 veterans. The authors found that "the treatment group participants reported less functional disability, fewer PTSD symptoms, and fewer depression symptoms than the comparison group" (Lanning, Wilson, Woelk, & Beaujean, 2018, p. 70). Members of the treatment group also reported a higher level of quality of life than those of the comparison group. The findings of this study support the efficacy and potential effectiveness of therapeutic horseback riding as an alternative and complementary treatment for military service members with PTSD.

Burton et al. (2019) examined the effects of an equine-assisted psychotherapy program with veterans who were diagnosed with post-traumatic stress. Their 6-week program was offered to veterans for 1 hour per week in groups of three to four veterans. Using a treatment group of 10 veterans who had received the equine-assisted psychotherapy and a control group of 10 veterans who had received delayed treatment, the authors examined changes in salivary cortisol, PTSD symptom levels using the PTSD Checklist-Military (PCL-M), and resilience using the Connor-Davidson Resilience Scale (CD-RISC). Findings showed a significant decrease in PTSD symptoms in both groups and a significant increase in resilience as measured by the CD-RISC. They concluded that the EAP program might be commensurate with standard therapy and that further research is needed to understand the efficacy of EAP programs for veterans with PTSD.

In a pilot study conducted by Wharton et al. (2019), the researchers adapted a manualized 12-session cognitive processing therapy intervention infusing equine-facilitated techniques into the program (EF-CPT). The study consisted of 27 participating veterans who were assessed before and after the intervention on the PCL-M, the Trauma Related Guilt Inventory (TRGI), the Working Alliance Inventory—Short Form (WAI-SF), and the Human–Animal Bond Scale (HABS). The authors found that the post-traumatic stress scores improved significantly, as did the TRGI scores on all scales. The results on the HABS and on the WAI-SF showed "a good working relationship at baseline and significant improvement over the course of therapy between both the therapist and [the] client, and between the horse and [the] client" (Wharton et al., 2019, p. 272). However, the findings on the post-traumatic stress scores need to be taken with caution as the authors used the PCL-M instead of the latest version, the PCL-5, which is based on the new criteria for PTSD in the DSM-5 (American Psychiatric Association, 2013).

Additionally, Gehrke et al. (2018) investigated physiological and psychological changes during an 8-week horsemanship program with 17 veterans in three separate cohorts of five to seven veterans. Their participants received 3 hours each week of guided horse activities. Their results showed improvement in the balance between the nervous system and a 20.6% increase in heart rate variability. They also found an improvement in self-perceived quality of life, with scores on the positive and negative affect schedule revealing an increase in affect by 14.4%. As Gehrke et al. (2018) state, "Having Veterans work with horses and mindfully focusing on connecting with horses reduces anxiety, alleviates stress and contributes to a more optimistic life view" (p. 67).

In a systematic review conducted by Boss et al. (2019) of nine studies on equine-assisted interventions with veterans with PTSD, the authors stated that their findings were mixed. The results showed statistically significant improvement for PTSD symptoms, while other variables such as resilience, social functioning, and quality of life showed improvement but were not statistically significant. They advise that more outcome research on equine programming for this population is necessary before recommendations can be made to include it as an adjunct treatment for veterans.

Finally, two very recent studies caution the field regarding past studies not meeting the threshold to make definitive conclusions about the EAP program as a treatment for military and police populations. Arnon et al. (2020) developed an equine-assisted therapy (EAT) program for veterans with PTSD that was manualized and administered to two pilot groups of eight veterans (men = 6; women = 2), utilizing a group format, consisting of no riding exercises, and delivered by a licensed mental health professional and a trained horse expert, over 8 weekly sessions. "At exit interviews, all participants reported a positive EAT experience, gave examples of how EAT helped them, and said they would recommend it to others. All wished the program had lasted longer" (Arnon et al., 2020, p. e561). However, at a 3-month follow-up, PTSD and depression symptoms worsened for four of the six participants. Thus, for 50% (n = 4) of the participants, the manualized EAT program did not have lasting benefits. The authors suggested that the program needed to be tested in a larger open trial.

A second recent Australian study conducted by Romaniuk et al. (2018) evaluated an equine-assisted learning psychotherapy program with veterans who self-identified as wounded, injured, or ill and their partners. The actual program was the Equine Encounters Australia program (EEA), led by two EEA facilitators certified in equine-assisted psychotherapy. Ten programs were run with six individual programs and four couples programs with pre- and post-intervention measures and a 3-month follow-up assessment. The results reported that 47 individuals had completed the program (25 individual veterans and 22 veterans in the couples program). They found that only the couples group had significantly fewer symptoms of PTSD, depression, and stress at the 3-month follow-up. These findings, along with those of Arnon et al. (2020) above, warn that although veterans experience positive benefits during their EAT, these benefits do not necessarily hold. An examination of the factors that contribute to long-term success is warranted in future research.

In summary, there is a growing body of research on EAT and EAL programs. However, these studies are predominantly conducted with children or adolescents. Additionally, there is an emergence of evidence in the last 5 years of the value of EAL interventions and programs for military veterans and members of the RCMP who suffer from post-traumatic stress symptoms, depression, and anxiety. The majority of this research has employed quantitative research designs almost exclusively. Given the paucity of qualitative research on EAL programs that have investigated the experiences of Canadian military veterans and members of the RCMP participating in equine-assisted learning, this study contributes to this literature by providing descriptions of how EAL programs have potential as an alternative approach to address occupational stress injuries among these populations.

Purpose of the Present Study

In this study, we evaluated seven equine-assisted programs that provided eight sessions over 4 weekends for Canadian veterans and members of the RCMP who

reported occupational stress injuries (OSIs). Given the scarcity of research on this topic among Canadian veterans and members of the RCMP, there was interest in examining the value of such programming to address their mental health needs. The open-ended research question for this qualitative study asked: How do veterans and RCMP members who have occupational stress injuries describe their experiences in an equine-assisted program? The research question was broad in order to ascertain the fullest possible responses within a focus group research methodology (Fern, 2001; Krueger & Casey, 2015; Morgan, 1997). We included RCMP officers in this study due to the fact that there was a great need expressed by the RCMP to include their personnel in the program along with military participants. Although the literature suggests that therapeutic approaches can differ between the two populations, we found that their experiences of OSIs were commensurate as members of both groups experience a paramilitary structure and are exposed to violent traumatic events that may result in PTSD. The EAL program protocols were not adapted for either group-members of both groups received the same program.

Method

The findings we describe below are the qualitative component of a larger, mixed-methods study where we collected pre- and post-program measures on post-traumatic stress, depression, anxiety, emotional regulation, and overall well-being and implemented qualitative focus group interviews (Fern, 2001; Krueger & Casey, 2015; Morgan, 1997) at the end of each program. The qualitative research component of the study employed audio-recorded, open-ended, focus group interviews. In future publications, we will report the findings of the quantitative results. To date, we have delivered seven programs to 20 military veterans and five RCMP officers. Approximately four participants were assigned to one of the seven programs.

Equine Program Design

For this study, we utilized the principles of EAL in which participants learn horse communication skills to build self-confidence and to develop trusting partnerships. In this program, veterans were recruited through letters of invitation and through recruitment posters distributed to various veteran organizations in British Columbia: the Veterans Transition Network in Vancouver, the Centre for Group Counselling and Trauma at UBC, the Occupational Stress Injury Clinic of Vancouver, and the Royal Canadian Legion BC/Yukon Branch. Thirty individuals were screened for the programs via telephone interviews. Inclusion criteria for the program were: (a) previous employment with the Canadian military or with the RCMP, (b) having a diagnosed operational stress injury, (c) the ability to commit to participation in the 4-week program (two sessions per week), (d) the ability to work physically in the round pen with a horse and the trainer, and (e) being over 18 years of age. Twenty-two veterans and five active duty RCMP officers volunteered to participate in this study, with one military veteran dropping out after two days due to travel issues and another after the first session with no explanation on follow-up. Ethics approval was obtained from the University of British Columbia behavioural research ethics board. Informed consent procedures for the study were provided to all volunteers before the programs began, and all provided signed informed consent for the study. The project took place at three separately insured horse farms on the lower mainland of British Columbia from the fall of 2018 to the fall of 2019. The trainer and the registered psychologist were insured. The psychologist also had a first-aid certificate, as required by the insurers. A private donor generously provided funding for the programs. There was no conflict of interest in this research study involving the research team or the participants.

Description of Equine Program Delivery

Each equine program was scheduled for eight sessions over a 4-week period with participation times of 1.5 to 2.5 hours per session. An experienced horse trainer provided program instruction at each session and a registered psychologist attended each session to oversee the participants' well-being during and after their sessions. Doctoral graduate students were involved in the recruitment and scheduling process and used random assignment to place participants into dyads. The psychologist assessed all participants' pre- and post-session interventions and was involved in all sessions to support participants, to debrief with them, and to intervene when needed. The participants worked in dyads for all sessions except the first, in which all participants (n = 3-5 per program) attended an introductory psychoeducational and safety session. The setting for the program was a farm in a rural area outside Vancouver. Two horses were involved in the program and were owned by the horse trainer. All programs were outside at the farm and meetings took place in a covered patio area while the equine-assisted learning took place in one of two round pens. As the participants worked in dyads, one participant worked within the pen with the horse trainer and one participant stood outside the round pen with the psychologist viewing the session. Although this equine program was not manualized, the sessions generally involved the following sequence of activities: (a) pre-program assessment for suitability for the program; (b) demonstration and introduction to the program, instruction on safety with the horses, and psychoeducation about horsemanship and about horse-human communication; (c) familiarization with the horses in the round pen—understanding body language and communication, grooming the horse, and connecting with the horse and with the horse trainer; (d) groundwork, review of previous skills, and introduction to new horsemanship skills each session; (e) gradual increase in horsemanship skills leading to liberty work with the horse for most of the

participants; and (f) post-program assessment on measures of PTSD, anxiety, depression, emotional regulation, and overall well-being. Although the participants were not screened for meeting the PTSD criteria, the pre- and post-session assessments that were administered included self-report inventories and will be reported on in a future article. At the end of each program, all participants met for an open-ended audio-recorded qualitative focus group interview about their experiences in the program, which ranged in length from 45 minutes to 1.5 hours.

Demographic Description of the Participants

There were six females and 19 males who participated in the study. All except two participants were Caucasian. Participant ages ranged from 29 to 70 years; the mean age was 50. Length of service in the military or in the police force was 3 to 37 years. Nineteen participants were employed at the time of the program and six were unemployed or retired. Marital status ranged from married (n = 7), in a common-law relationship (n = 7), divorced (n = 4), separated (n = 3), single (n = 3), to widowed (n = 1). Some of the participants had experience with horses and five had extensive experience with horses such as owning a horse or growing up on a farm with horses. All participants reported having an operational stress injury from their employment with the military or with the police force.

Data Collection: Focus Group Interviews and Observational Data

According to focus group researchers (Fern, 2001; Krueger & Casey, 2015), participants are selected because they have certain characteristics in common that relate to the topic of the focus group. In this case, the focus group interviews were conducted by the principal investigator (first author). Answering open-ended questions, the participants were encouraged to comment on topics they felt were most important. According to focus group research methodologists (Fern, 2001; Krueger & Casey, 2015; Morgan, 1997), each group should include four to 10 participants, and in this study each group had three to five participants. Participants were encouraged to discuss areas that they thought were most relevant and were allowed time to respond to open-ended questions about their experiences in their equine-assisted learning program.

Observational data was also collected through the research notes made by the team's psychologist, who observed every session and kept a research journal throughout the study. Additionally, the horse trainer was interviewed at the end of the program for input on his observations about the program. These three sources of data (focus group interviews, the psychologist's observations, and the interview with the trainer) formed the basis of the analysis for this qualitative study.

Data Analysis: A Thematic Content Analysis

All focus group interviews were audio-recorded and transcribed confidentially by a professional transcriptionist. All participants were assigned a pseudonym to ensure their anonymity. Following Braun and Clarke's (2006, 2013) thematic content analysis method, we coded each transcript for meaning units, created categories by collapsing similar codes together, and analyzed the content of the categories to construct five main overall themes.

Next, the observational data that was recorded in memos was reviewed using Braun and Clarke's (2006) six-step method of analysis, and the results were incorporated into the overall thematic analysis. These steps include (a) familiarization with the data by reading and rereading the transcripts, (b) generating initial codes, (c) searching for potential themes, (d) reviewing the themes and generating a thematic "map" of the analysis, (e) defining and naming the themes, and (f) producing the report. Finally, the interview with the horse trainer was examined and included in the analysis where appropriate to shed light on his understanding of the research findings and to note consensus with the participants' experiences of the program.

Data Verification Process

In terms of verifying the findings in this study, two processes were used: a member checking procedure with all participants and peer review of the findings. The thematic findings of the study were sent electronically to all participants for their review and commentary. No changes to the findings were required by the participants. An accomplished therapist in equine-assisted therapy who is a counselling psychologist with over 20 years of clinical practice and many years of experience with horses was consulted. This person confirmed that the analysis was comprehensive and had pragmatic value as an alternative therapeutic intervention for individuals with post-traumatic stress.

Findings

Five main themes were discovered through a thematic content analysis (Braun & Clarke, 2006, 2013). The findings are as follows: (1) appreciation for the value of learning new skills, (2) connection with the horse in terms of the human–animal bond, (3) self-regulation and learning to "speak horse," (4) sense of accomplishment and competence, and (5) transferable skills to everyday life. Each theme is described below, with exemplary quotes to illustrate the meaning and significance of the theme.

Theme 1: Appreciation for the Value of Learning New Skills

All participants described the educational value of learning new skills in the equine-assisted learning program. The main categories in this theme were the educational components of the program, the value of partner learning, an appreciation for the quality of instruction, and the value of team building. One participant found that the "hands-on ground work was great and the repetition was good for learning how to work with the horses." Another participant likened the experience to learning how to check out a vehicle in the army: "In the army if you take a vehicle out you've got to go through the whole checking process. It's the same with the horse—grooming the horse and looking after the horse right before you get to ride it."

In terms of learning from one's dyad partner, one participant described his learning experience this way:

It was a little bit easier, I think, for myself as a raw beginner to sort of always go second and have the horse a little bit more calm and prepared to work, so I would have an easier time doing that skill.

Almost all the participants described the benefit of working in pairs and of having the opportunity to observe their partner practising their horsemanship skills. They also valued the skill and the passion of the horse trainer. "The instruction was phenomenal; the trainer was awesome. He and the horses made it, basically." "I just appreciate learning from somebody with the passion that [name of the trainer] has." "I found it very easy to learn from him; he is very passionate, so it makes it much more enjoyable when somebody has that kind of knowledge, experience, and passion." Here is a quote from someone who had had previous experience with horses:

I appreciate my time coming here and learning. Any time I can take to learn new skills I enjoy—especially something where I have to focus and make sure I'm relaxed to be able to interact with the horse. So learning from [name of the trainer] was awesome because I definitely have worked quite a bit with horses, but I'm always learning something new and I like his approach. It was cool watching him work with the horse and learning from him.

The following quote illustrates the sentiments expressed about the equine program as promoting team-building skills:

I think what I got out of this program was the team building, and it is really big for me. I was really lucky to work with some of my partners here and it really tells when a person's been in those environments before.... It was like there were four of us in there [partner, horse, trainer, and me], and teamwork is all I know in life to do [through my military training].

This equine program provided important learning skills, and the format of the delivery was a key factor in participants' learning—having a well-trained and passionate instructor, working together in dyads toward goals, and being part of

a team that resonated with their experiences in previous occupations made their learning experiences valuable.

Theme 2: Connection with the Horse in Terms of the Human–Animal Bond

All participants described the importance of creating a bond with the horse as a significant part of equine-assisted therapy: "It's about communicating with the horse in a positive way and learning that animals communicate with their behaviour." "The horse resonates through my touch and my emotional state; the calmer I am, the calmer the horse will be." This next participant described the importance of her connection with the horse:

I was told to pat underneath the neck, and the horse started to go to sleep. He was lulled into sleep from my touch.... That was really special, a strong sense of connection, touch, comfort, and calm, and immediately the horse responded, so I felt calm, too. If only I could allow myself to be stroked to a calm state because I don't have ways to relax due to my hyperarousal.

A major category in this theme was the process of grooming the horse that turned out to be a key element in building the human—animal bond. Many participants described a bond or connection with the horse through the act of grooming the horse and having one-on-one time with the horse. One participant stated:

I really enjoyed grooming much more than all the rest of it cause it's personal. It's hands-on—you're touching, right, you're feeling, you can feel the muscles relax.... I was grooming with the left hand and caressing with the right. I enjoyed that so much.

Many participants stated that it was soothing and comforting to know that there was some sort of bond or connection being made. As several stated, "It's personal" or "It's a relationship." Often, the participants mentioned that the instructor pointed out how their relationship with the horse was developing: "The horse wants to come to you because he trusts you." This final comment sums up this theme: "The whole process works because they helped us develop the human–animal bond."

Theme 3: Self-Regulation and Learning to "Speak Horse"

Cultivating active awareness of the participants' felt sense was a significant part of the training. Many of the participants described being nervous, anxious, or fearful before engaging one-on-one with the horse. The psychologist and the trainer used teachable moments to train the participants to focus in on their bodily sensations in order to zone into their own ability to affect-regulate or to self-regulate. They were then able to transfer these skills in session with the horse with immediate results. As one participant pointed out, "I particularly liked working in the round pen. It was excellent but very challenging and also calming and focusing. The trainer had me relax, and then the horse completely transformed. I thought, 'You see how my demeanour changed someone else!'" Another participant confirmed this: "I couldn't get this change done for myself and I was getting flustered and the horse was too. Then the trainer had me relax, then immediately the horse calmed down, too." Having to focus on the instructions as well as on their felt state was an important aspect of the training: "Working in the round pen, I had to concentrate and think a little bit more because it's not something I've done a whole lot of lately." For other participants, though, the activities were also calming and allowed them to free up their minds from their OSIs: "The grooming was more like a meditative state.... It was tranquil, some place to let your mind be free and not thinking about the crap." One participant with a lot of fear stated that

I experienced a lot of anxiety and sometimes flashbacks ... just the anxiety of waiting to work with the horse.... But the trainer was a big plus because he was always calmly talking, always moving and working us through it and when I got that rope in my hand, I was comfortable and that really helped me.

Another participant summed up this theme as follows:

I thought it was amazing the way the trainer had us working with the horses and how responsive the horses became, and when I found myself getting anxious, upset, because it wasn't happening the way it should have, I could actually see the effect on the horse. So then, by calming myself, breathing properly, and just slowing down and listening, I was able to help, and the horse was immediately calm.

Another stated, "The instruction was phenomenal. What I took away from it showed me to control my anxiety and my anxiousness." The researchers heard this comment many times over the course of the programs. Essentially, participants discovered that understanding their inner state and regulating it had instant results with the horse. They called it "learning to speak horse."

Theme 4: Sense of Accomplishment and Competence

All participants described achieving a sense of accomplishment in this equineassisted learning program. The main categories in this theme were personal achievements, developing self-confidence in horsemanship skills, developing a sense of control, and experiencing a sense of safety and trust. This next excerpt describes one person's sense of accomplishment and pride in achieving their goal:

I think my favourite moment was last weekend when the trainer said, "OK—go catch the horse with nothing." I had the big purple whip in my hand, but there was no rein, no harness, nothing, and I did it and it was like, "Damn—that was good." ... I was pretty impressed with myself and getting over the initial shock of "You want me to catch the horse with nothing!" And being able to do it was phenomenal.

Another stated: "I felt I'd really accomplished something by the end and you know I could do the figure eight." And as another explained, "You know, even though I had been laid up and [was] not going to come, it was so worthwhile to go and see that huge horse get down on his front knees because I asked him to." Finally, another participant stated his determination not to end until he got the horse to stop with no rope attached:

There was no rope attached to the horse, right, and I said to myself, "It may be the last session, but I am not leaving until you and me standing here are going to do that." And I got him to stop and turn in to me.... That was the best part of it for me.

Gaining a sense of control and mastery over the horsemanship skills was a key factor in terms of increasing a sense of competency and self-confidence.

Theme 5: Transferable Skills to Everyday Life

Several participants mentioned that they learned transferable skills that they could use in their everyday lives. Skills mentioned were (a) affect regulation skills, (b) breathing to calm down, (c) the importance of building relationships, (d) the importance of being out in the world with others doing things you like, (e) being able to read people by learning to read horses, and (f) feeling that if they could accomplish this skill, then they most likely could find success with other learning opportunities. Here are a few quotes to sum up this final theme:

There are different ways to communicate, obviously, with the horse, with people, with the horse trainer, and with other people in these groups, and all different other groups that are part of our lives.... I am able to read people a little bit differently.... And the same thing in the real word, with our relation-ships—if I can anticipate when somebody's going to be upset, I can keep them back out of my space and know the right way to do that.

In the preceding quote, the participant is describing the skills he learned to manoeuvre the horse that would help him engage in the real world with people, even if they are upset. Another stated, "It is good to get out and be with others as we tend to isolate; so it pushes our boundaries to do more connecting in the world."

Another transferable skill was learning about engagement/disengagement and the effects it had on others: "The engagement and disengagement from the horse I found just empowering.... It was really interesting to see how much that effect had.... So that mind/body connection happening is phenomenal." Basically, the participants learned that if they engaged with others physically and emotionally, others would respond.

A final quote illustrates the idea that skills learned in the program were being used in participants' everyday relationships:

I've already started finding some ways [that] I can use what I've gathered from the round pen in my real world with my 13-year-old daughter and with other people in my life. I found that this is working for my personal life, not just with the horses.

In summary, the five themes illustrate the positive experiences that participants had in this program. The themes give voice to the potential of equine-assisted learning programs to support military veterans and RCMP officers who have occupational stress injuries. In the next section, we discuss the implications of the findings and recommendations for future programming.

Discussion

The qualitative findings in this study map onto the current quantitative evidence on the effectiveness of equine-assisted therapies. The five themes found in this study underscore the statistical results from previous quantitative research on (a) positive changes in quality of life (Ferruolo, 2016; Gehrke et al., 2018; Lanning, Wilson, Krenek, & Beaujean, 2017; Lanning, Wilson, Woelk, & Beaujean, 2018), (b) increases in self-confidence and self-efficacy (Ferruolo & Sollars, 2013; Lanning, Wilson, Krenek, & Beaujean, 2017; Smith-Osborne & Selby, 2010), (c) increases in affect regulation (Lanning & Krenek, 2013; Lanning, Wilson, Krenek, & Beaujean, 2017), (d) a sense of safety and trust (Ferruolo, 2016; Lanning & Krenek, 2013; Lanning, Wilson, Krenek, & Beaujean, 2017), and (e) an increased sense of learning about self (Ferruolo, 2016; Lanning, Wilson, Krenek, & Beaujean, 2017). Wharton et al.'s (2019) study, the only one that measured the human-animal bond, found a "significant improvement over the course of therapy ... between the horse and client" (p. 272). Our study substantiates these findings on the strength and importance of the human-animal bond in equine therapy. Although our qualitative findings do not address PTSD

symptom reduction, many of the studies conducted above did see a decrease in PTSD symptoms among their veteran participants (Ferruolo, 2016; Gehrke et al., 2018; Johnson et al., 2018; Lanning, Wilson, Krenek, & Beaujean, 2017; Lanning, Wilson, Woelk, & Beaujean, 2018; Wharton et al., 2019). As Ferruolo (2016) states, "Equine-facilitated mental health is one modality that shows significant promise in treating depressive and anxiety disorders, as well as elevating self-confidence, self-esteem, self-concept and overall well-being" (p. 53). Our findings, along with the previous research reported here, suggest that equine-assisted learning has promise as an alternative approach for retired and serving military personnel and police officers.

The qualitative findings give personal voice to the statistical results found in past research. Understanding the personal meanings related to equine-assisted learning programs within these populations is important for future research initiatives as these meanings offer direction for future studies that could focus on the mechanisms of change within equine-assisted programs and the particular parameters of program delivery that are needed for equine-assisted programs to be effective with populations suffering from post-traumatic stress and from other occupational stress injuries.

Theoretical Considerations

The findings in this study that point to the human–animal bond raise questions about the theoretical underpinnings of equine-assisted therapy. We suggest that theoretical consideration should be given to the link between the human–animal bond and attachment theory. Similar to how Bachi (2013) explains how attachment theory applies to equine-facilitated psychotherapy, our clinical observations support the idea that attachment theory constructs—such as seeking a secure base, proximity seeking, and a safe haven—were evident in our study. As Payne et al. (2016) state,

Understanding the mechanisms behind animal-human emotional bonds may lead to the development of strategies to promote functional relationships and perhaps, secure attachment. First and foremost, there is a need for horse-human attachment to be assessed directly.... There is some support for the existence of attachment-like behaviours in the horse-human dyad and it is important to note that horse-human attachment has received little attention in the literature. (p. 119)

We support Payne et al.'s appeal for future empirical evidence on the relationship between attachment theory and the human–animal bond.

Further, the role of emotional awareness and regulation may play an important part in the horse–human bond in terms of "the ability of an individual to monitor his or her emotions as well as those of others, and to use this information as a guide for thoughts and actions" (Payne et al., 2016, p. 115). Our participants described in detail how they had to self-regulate in order to connect with the horse. Future research is needed to understand further the relationship between emotional regulation and the human–animal bond.

Recommendations for Future Programming

Participants, the psychologist, and the trainer had recommendations for future programs. Participants found that the 4-week program was too short and wanted a longer program. In previous research, sessions of 12 to 24 weeks were provided to veterans and we recommend that a 12-week program such as that described in Wharton et al.'s (2019) study or a 6-week program such as that described in Gehrke et al.'s (2018) study should be considered in future research. The only drawback to a longer program is the cost. The cost of each 4-week equine program, if provided free of charge to veterans and to RCMP officers, amounted to approximately \$30,000. Therefore, we estimate that a 12-week program would cost three times as much as a 4-week program, which is most likely prohibitive for organizers if they want to provide a free program to veterans or other first responder groups. A 6- to 8-week program may be warranted given the costs and the fact that research evidence calls for longer programs to ensure mental health benefits for veterans (Kendall et al., 2015).

Another recommendation from participants involved the inclusion of a riding component. A few veterans who had previous experience with horses were able to add a short riding component to their program, but it was not scheduled as part of the regular program. If changes were made to extend the program to 6 weeks, perhaps a riding component could be added. However, it must be recognized that the inclusion of a riding component to the program may act as a confounding variable in determining how these kinds of programs benefit participants' mental health. In future program design, this could be considered in the initial planning.

Planning of an equine-assisted intervention program for those who have trauma needs to be carefully implemented with an experienced horse trainer and with oversight by a registered psychologist or a registered clinical counsellor. Although the Canadian Therapeutic Riding Association and the Professional Association for Equine Facilitated Wellness do not require that a psychotherapist have an equine background, it is our recommendation that psychotherapists have an equine background as well as trauma training. If a client becomes distraught or overwhelmed, the mental health professional at the site needs to be trained in affect regulation skills and in providing assistance for psychological trauma. Additionally, the counsellor or psychotherapist needs to have familiarity with military culture and policing culture in order to create a strong alliance with clients and to gain their trust. Physical safety with the horses and the development of emotional safety with the staff delivering the program are paramount for working effectively with veterans and with RCMP officers who have occupational stress injuries. Being able to work within the military or within policing culture is key to the success of an equine program when working with these populations.

Limitations

Given the qualitative research design, the findings are not intended to be generalizable. However, we anticipate the findings may have resonance for individuals who have similar background experiences and who may find the qualitative results informative and useful. Another issue is the lack of diversity in our sample. Future research needs to include more diversity within the sample (e.g., ethnicity, race, gender, sexual orientation, physical and cognitive abilities, age, and occupation). There may be other confounding factors that influenced the veterans' and RCMP members' experiences in the program that were not examined, such as influences in the environment, the use of different horses over the 4 weeks, seasonal conditions in late fall, and the quality of the dyadic match. Finally, we must consider the possibility of selection bias as most participants volunteered from local veteran support organizations and could possess characteristics that are conducive to positive outcomes.

Conclusion

In summary, our findings, along with the majority of the current studies published on the topic of equine-assisted learning programs, underscore equineassisted interventions as an alternative approach for military and police personnel with PTSD. Our hope is that future programs continue to evaluate EAT outcomes in order to build on the extant knowledge in this field.

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