Taking a PAWS to Reflect on How the Work of a Therapy Dog Supports a Trauma-Informed Approach to Prisoner Health

Colleen Anne Dell, PhD¹ and Nancy Poole, MA²

¹University of Saskatchewan

²British Columbia Centre of Excellence for Women's Health and PhD candidate, University of South Australia

Abstract

Canada's Correctional Investigator has found that mental health disorders, alone or in combination with alcohol and drug abuse, challenge public health and safety. Trauma is a key contributor among Canada's inmate population. Therapy dogs can assist in supporting individuals with mental health, addiction, and trauma concerns. This case report presents the work of a St. John Ambulance therapy dog in a trauma-informed approach to prisoner health. The Substance Abuse and Mental Health Services Administration articulates six evidence-based trauma principles for service providers; safety; trustworthiness and transparency; peer support; collaboration and mutuality; empowerment, voice, and choice; and cultural, historical, and gender issues. These principles are used as a lens to examine what the therapy dog appears to offer instinctively and effortlessly in its interactions with prisoners. Illustrative examples are provided.

Keywords

addiction; animal-assisted intervention; mental health; inmate; prisoner; therapy dog; trauma; trauma-informed approach

Description of the Case

"In the prison system, you shut your feelings down," he said. "You gotta do that to survive, because it's hard. But the dogs brought me back, you know, to the human side." -New York State Prison Puppies Behind Bars program participant

(Montalvan, 2011, p. 290)

Mental health and addictions among Canada's correctional population are growing concerns (Demers, 2014; Fazel, Bains, & Doll, 2006; Office of the Correctional Investigator [OCI], 2014; Power & Beaudette, 2013; Teghtsoonian, 2009; Wilton & Stewart, 2012). A recent

Correspondence: Colleen Anne Dell, PhD, Department of Sociology and School of Public Health, University of Saskatchewan, 9 Campus Drive, 1109 Arts Building, Saskatoon, SK S7N 5A5, colleen.dell@usask.ca.

The authors declare no conflict of interest.

Video Abstract available for additional insights from the authors (see Supplemental Digital Content 1, <http://links.lww.com/JFN/A16>).

report by Canada's Correctional Investigator found that "mental health disorders, alone or in combination with alcohol abuse or drug addiction, represent a major health care and public safety challenge" (OCI, 2014). It is also recognized that trauma is a key contributor to these challenges in our federal prisons. Mental health and addiction concerns apply to both male and female prisoners, who have unique as well as overlapping needs (Derkzen, Booth, McConnell, & Taylor, 2012; Langley Animal Protection Services, n.d.; Matheson, 2012; Public Safety Canada, 2014; Wu, 2013). Currently in Canada, there is momentum to improve the capacity to address mental health and addictions treatment and to support the needs of prisoners.

Animal-assisted interventions (AAIs) are "any intervention that intentionally includes or incorporates animals as part of a therapeutic or ameliorative process or milieu" (Kruger & Serpell, 2006, p. 25). Correctional Service Canada (CSC) has supported AAIs in some institutions, including Pawsitive Directions at Nova Institution in Nova Scotia, the Dog Boarding and Training Centre at Fraser Valley Institution in British Columbia, and the Nekaneet Horse Program at the Okimaw Ohci Healing Lodge in Saskatchewan (Langley Animal Protection Services, n.d.; Office of the Deputy Commissioner for Women, 1998, 2004). AAIs in prisons across North America and around the world range from visiting services (e.g., Righteous Pups in Australia) to dog training programs (e.g., Puppies for Parole in the United States). This is a newer role for dogs within the prison environment; historically, they have been used in enforcement (e.g., drug detection).

This case report presents the reflections of a St. John Ambulance volunteer therapy dog handler regarding her dog's interactions with prisoners at a federal correctional institution in Saskatchewan—the Regional Psychiatric Centre (RPC). Particular attention is given to how the dog's involvement can support a trauma-informed approach to prisoner treatment and healing. The handler documented her observations as customized case notes in a reflective journal after each visit over 12 months (2014–2015). This unique contribution to the mental health and addictions fields addresses trauma experienced by men and women who are incarcerated and can enhance our understanding of this segment of the prison population.

Intervention

A handler and therapy dog team from the Saskatchewan St. John Ambulance Therapy Dog volunteer program regularly visit the RPC in Saskatoon. The RPC is a mixed-gender forensic psychiatric facility with a capacity of approximately 200 prisoners and 350 staff (CSC, n.d.). It has a multilevel security designation and is accredited as a mental health facility. The St. John Ambulance Therapy Dog program was launched in Saskatchewan in 2007 and has grown to include 130 therapy dog teams. The program is active in all Canadian provinces and territories. The program goal coincides with that of the organization—to enable Canadians to improve their health, safety, and quality of life by providing training and community service. The Therapy Dog program has two specific objectives: to offer (a) support and (b) love to the individuals the dogs and handlers visit (St. John Ambulance Canada, n.d.).

Over the past year, a therapy dog team visited the RPC approximately every 2 weeks, meeting with six prisoners (four women and two men) and for an average of 10 visits each. The visits ranged from 15 minutes to 1 hour, averaging 30 minutes. Participants were chosen by facility staff because they like dogs; attendance was optional. All the participants have complex mental health needs including self-harm, childhood trauma, mental illness, substance abuse, and posttraumatic stress disorder (PTSD). The visiting handler is a university professor with a significant work history in corrections and 2 years of experience as a therapy dog handler. The therapy dog, Kisbey, is a 7-year-old female boxer who began her work with the St. John Ambulance Therapy Dog program and at the RPC 12 months ago.

Summary of Key Findings

In 2014, the U.S. Substance Abuse and Mental Health Services Administration (SAMHSA) identified six broad, evidence-based principles for service providers in any setting “to address the consequences of trauma in the individual and to facilitate healing” (SAMHSA, 2014). They are safety; trustworthiness and transparency; peer support; collaboration and mutuality; empowerment, voice, and choice; and cultural, historical, and gender issues. These principles are purposely not prescriptive. They promote recovery and resilience by facilitating, for example, emotional regulation and relational connection. SAMHSA’s principles were not initially identified as potential outcomes of the therapy dog visits to the RPC. In reviewing the handler’s observations through the lens of trauma-informed practice, the authors found that the dog’s instinctive and effortless interactions with the prisoner participants were congruent with these six key principles. In essence, the prisoner–dog interactions were the SAMHSA principles in action. Examples are provided; the names of all prisoners have been changed.

Principle 1: Safety

Throughout the organization, staff and clients should feel physically and psychologically safe (SAMHSA, 2014). The handler observed that the therapy dog helped the participants feel physically and psychologically safe.

Before Rebecca met the therapy dog, she was informed that Kisbey was a certified St. John Ambulance Therapy Dog who had been tested for her temperament (i.e., she is not aggressive) and her volunteer position (i.e., she likes to visit with people). As Kisbey and her handler waited for the heavy steel door with a glass window to open for Rebecca to enter the visiting room, Kisbey sat in front of it, staring intently at Rebecca and whining. A huge smile lit Rebecca’s face as soon as she saw the dog. Kisbey was jubilant when Rebecca walked through the door, evident in her rapidly wagging tail and her desire to be close to her. About 3 minutes into the meeting, Rebecca asked whether Kisbey knew if someone was a good person. As she asked this, Kisbey rolled over onto her back beside Rebecca. Her handler said, “Yes, indeed she does, because she is exposing her belly to you. She feels safe with you. She knows.” After two more visits, Rebecca read Kisbey a letter she had written to her: “I put your picture on my cell door as a comfort zone knowing that you’ll be with me no matter how I feel.” On the day Rebecca completed the program, she received a card from

Kisbey: “I am such a lucky dog for having met you Rebecca—we were friends from the moment we met!”

Principle 2: Trustworthiness and Transparency

Organizational operations and decisions are conducted with transparency and the goal of building and maintaining trust among staff, clients, and family members (SAMHSA, 2014). The handler observed that the participants built and maintained trust in their interactions with the dog and experienced transparency of emotions through interacting with her. By this, we mean that they were able to participate in an encounter with another sentient being that candidly communicated its feelings.

On the seventh visit between Kisbey and Alice, the dog greeted Alice in her usual excited manner for approximately 2 minutes and then came and sat beside her handler. Alice had a wound on her forehead; she moved slowly and appeared unhappy. Alice and the handler sat beside each other for a photograph the institution organized that day. Kisbey was asked to sit between them, but the dog did not want to be close to Alice. When directed, Kisbey lay down, and Alice petted only her head while the handler petted the rest of the dog’s body. This continued for the remainder of the 15-minute visit, during which Alice revealed that she had harmed herself that afternoon.

A staff member later discussed the transparency of Kisbey’s reaction with Alice. That is, Kisbey physically reacted in direct response to Alice’s emotional state by placing distance between them. This same staff member advised that another staff member had been able to help Alice regulate her emotions at a point when she wanted to self-harm by asking her to revisit her feelings from when she visits with the dog.

When Kisbey met Kevin for the first time, she was more excited and happy than usual. Looking at him through the glass in the steel door of the visiting room, she could barely sit because she was wagging her tail so much and whining excessively. At the end of that first visit, Kevin told Kisbey that he loved her, as he kissed the top of her head. During a subsequent visit, Kevin shared with a staff member that he felt that Kisbey loved him unconditionally.

Principle 3: Peer Support and Mutual Self-help

Both peer support and mutual self-help are seen as integral to the organizational and service delivery approach and are understood as key vehicles for building trust, establishing safety, and empowerment (SAMHSA, 2014). The handler observed that the dog acted as a form of peer support and mutual self-help—building trust (see above), establishing safety (see above), and empowerment (see below).

Before his third visit with Kisbey, Jake told a staff member that he did not want to see the dog that day because he was feeling down and “was not in the right head space.” The staff member responded that this was all the more reason to see the dog, and Jake went ahead with the visit. It took him a long time to make his way to the visiting room. Once in it, he walked around the room for a bit and sat down on the floor. Kisbey lay beside him and he petted her. She looked at her handler periodically but never strayed from Jake’s side. It was a

very intimate moment between them. The handler uniquely felt she was intruding on their time together, so she just sat quietly to the side. There was no conversation. Jake just looked at Kisbey and petted her as she lay beside him. He grinned slightly and looked increasingly relaxed as time passed.

The participants regularly comment that Kisbey just makes them feel better. Those who will have the opportunity of an escorted temporary absence in the future frequently mention wanting a visit to the local Humane Society. In fact, they frequently shared comments indicating a desire to help abandoned and abused animals. In a recent letter to the handler written by one of the participants, he shared: “I am not sure if you know this, but I struggle with day-to-day relationships and common socializing. I have a very hard time being around people, especially in small or large groups. I just wanted to let you know that when I see Kisbey, Anna-Belle and Subie (other St. John Ambulance Therapy Dogs) I find a large bit of courage and can spend time with people.”

Principle 4: Collaboration and Mutuality

There is true partnering between staff and clients and among organizational staff from direct care staff to administrators. There is recognition that healing happens in relationships and in the meaningful sharing of power and decision making. One does not have to be a therapist to be therapeutic (SAMHSA, 2014). The handler observed that the dog was a source of collaboration and mutuality.

Often during Kisbey’s visits, staff members will stop in to greet the dog and share stories about their own dogs. The prisoners participating in the program are aware that staff who facilitate the volunteer therapy dog program in the institution do so as an extra duty. They include a recreation therapist, a parole officer, a social worker, and a psychologist. They are also aware that the therapy dog program must work very closely with the RPC administration and its drug dog team so it will not compromise the institution’s security work with the drug detection dogs.

When Jenny visited with Kisbey, she sometimes had difficulty focusing, as was characteristic of her general behavior in the institution. In response, an activity was incorporated into her visits. This usually involved walking around the visiting room with Kisbey at heel beside her. Jenny’s response was positive, so additional activities (e.g., playing with a ball) that focused her attention and encouraged her to work in partnership with Kisbey were included.

Principle 5: Empowerment, Voice, and Choice

Throughout the organization, and among the clients served, individuals’ strengths are recognized, built on, and validated, and new skills are developed as necessary (SAMHSA, 2014). The handler recognized her positive, reinforcing role for the prisoners in their interactions with Kisbey as well as how the dog does this on her own.

Visits are scheduled every 2 weeks. During off weeks, Kisbey’s handler frequently drops off a photograph for the prisoners Kisbey last visited. On one of these photographs, she wrote: “It was WOOF-derful to visit with you yesterday! I am so glad we remembered each other

right away even though we had not seen one another for three weeks! That is a sign of true friendship, I think. I feel so comfortable and appreciated in our visits.” Positive, reinforcing comments are also offered during the visits when the prisoners show personal strength. Sometimes, they will speak in a still and assertive voice to encourage Kisbey to walk along side them. Other times, they make a positive choice in helping her settle down, using a calm and reassuring voice if she is very excited.

Without the assistance of the handler, Kisbey herself facilitates empowerment, voice, and choice in the prisoner. When Kisbey visits Jake, he regularly displays signs of the anxiety he experiences at the outset. He avoids eye contact, and his leg shakes. As each visit progresses and the number of visits increases, eye contact with Kisbey is made more often, and the leg shaking significantly dissipates or disappears. Kisbey motivates behavior change. Likewise, when faced with choosing between meeting with Kisbey for a second time and placing his weekly canteen order, Kevin decided that spending time with the dog was more important than a weekly supply of chips and pop. As shared already (above), Kevin also conveyed that, after his visits with Kisbey, he is happy and ventures out of his room more to socialize with other prisoners. At times Kevin, experiences challenges with maintaining his personal hygiene. However, as requested, he chose to shower before his visits with Kisbey.

Principle 6: Cultural, Historical, and Gender Issues

The organization actively moves past cultural stereotypes and biases, considers language and cultural considerations in providing support, offers gender-responsive services, leverages the healing value of traditional cultural and peer connections, and recognizes and addresses historical trauma (SAMHSA, 2014). The handler observed that the dog’s ability to live nonjudgmentally and fully in the moment is a key life lesson she shares.

Kisbey’s visits with prisoner participants can be described most simply as happy and in-the-moment encounters. There are expressions of happiness on everyone’s part (smiling and vocalization). Kisbey offers love and support, which she is there to do, and the participants respond with praise for her. This establishes, sometimes almost immediately, an affirmative, accepting, and encouraging atmosphere. The handler is able to reinforce that Kisbey remembers the past yet lives in the here and now, without judgment, and that this is one of her greatest strengths as a dog. Kisbey’s response to the prisoners transcends their crime, their gender, and their culture. Personal histories and personal characteristics do not matter to Kisbey. She connects directly to the humanness of the individual.

Discussion

The six broad, evidence-informed principles SAMHSA identifies for service providers, to support a trauma-informed approach, are essentially about humanness. They reflect concern for the well-being of others and frequently involve the ability to relay such qualities as compassion, care, love, empathy, and dignity. Trauma-informed practice acknowledges the high prevalence of trauma in populations such as those in prisons and those needing addiction and mental health services. Such institutions are seldom mandated to treat trauma but are in a key position to prevent retraumatization and to offer universal trauma-informed support. These settings are increasingly finding context-specific ways to integrate trauma-

informed practice with their work. Introducing visiting therapy dogs may be one way to provide a trauma-informed approach to prisoner treatment and support and to positively influence the larger prison environment.

Kisbey, the St. John Ambulance therapy dog, was able to interact with prisoners in ways that can be difficult, if not impossible, for human staff. For example, physical touch is a basic human need (Gallace & Spence, 2014, p. 107; Herrington & Chiodo, 2014; Suval, n.d.) but is discouraged within a correctional institution. It is also a source of trauma for many of the inmates. Robin and ten Bensel's (1985) work explains that animals can "satisfy the...need for physical contact and touch without the fear of the complications that accompany contact with human beings" (p. 71). The research of Dell et al. (2011) and Held (2006) with horses in animal-assisted therapy similarly concluded that a horse is a safe vehicle of physical contact.

The beneficial role of companion animals, or pets, in human mental health across the life cycle is well documented in the literature. Animals can provide people with a nonjudgmental and interactive space for communicating and bonding (Beck, 2014; Beck & Katcher, 2003; Maharaj & Haney, 2014). This is especially relevant to the mental health and addictions field, which is highly stigmatized and criminalized (Canadian Centre on Substance Abuse, 2014; Corrigan, Kuwabara, & O'Shaughnessy, 2009; Dell & Kilty, 2012; Mental Health Commission of Canada, 2012). The American Veterinary Medical Association (2015) recognizes that "the human-animal bond exists, [and] that it has existed for thousands of years" (para. 2). A valuable example is the developing practice and research on psychiatric service dogs as an intervention for military veterans with posttraumatic PTSD (Gillett & Weldrick, 2014; Soine, 2013; Yount, Olmert, & Lee, 2012).

The study of human-animal interactions is a potential source of human healing, specifically attending to the dissociative split between nature and the human spirit (Berry, 1990; Katcher & Beck, 1987; Metzner, 1993). The contemporary alienation of humans from nature has a potentially negative effect on human mental, physical, emotional, and spiritual health (Wilson, 2008). This is particularly relevant at this point in human history where there is increasing "awareness of what...animals can do for us" and the "preservation of the earth's living environment" (Wilson, 2008, p. 180). Human connections with nature and animals, termed "biophilia," may be a fundamental biological need (Besthorn & Saleebey, 2003; Kahn, 1997; Katcher & Beck, 1987; Lysack, 2010; Nebbe, 2000; Sabloff, 2001).

Unfortunately, the AAI field lacks a solid evidence base, because it is a complex, multidimensional area to study. The biological sciences, however, have recently made notable gains. For example, a study by Havey, Vlasses, Vlasses, Ludwig-Beymer, and Hackbarth (2014) found that "daily visits with a specially trained dog—even for just five minutes—can significantly reduce the need for pain medication in patients recovering from joint replacement surgery." Others are studying PTSD and measuring AAI's impact on cortisol (stress) and oxytocin (feel good/bonding) levels in veterans returning from war (Krause-Parello, n.d.). Simple social interaction with a dog can lower cortisol and elevate oxytocin levels in people (Handlin et al., 2011; Miller et al., 2009).

Scholarship on human–animal interactions within the social sciences, however, has been challenged by what Midgley (1994) referred to as a predetermined view of academically respectable work. Rock, Buntain, Hatfield, and Hallgrímsson (2009) reiterated this more recently, stating that “animals are part of the fabric of life, all around the world, yet social science disciplines all but ignore the presence and impact of physical environments and non-human life forms” (p. 993). Some quasi-experimental randomized control trials and qualitative studies yield encouraging results (Burger, Stetina, Turner, McElheney, & Handlos, 2011; Jaspersen, 2013; Kamioka et al., 2014). For example, a 2007 study of human–animal interaction in a U.S. prison setting identified prosocial impacts, including “increased treatment progress, decreased institutional infractions and improved social sensitivity” (Fournier, Geller, & Fortney, 2007). A recent study by Martin, Minatrea, and Watson (2009) showed that addiction professionals could increase their therapeutic alliance in an adult residential substance-abuse facility by incorporating canine-assisted therapy. The same has been documented in a 2013 study by Lubbe and Scholtz (2013). CSC’s 1998 literature review of AAIs in correctional institutions concluded that the programs “when implemented effectively, demonstrate a positive addition to any facility. These programs benefit all parties involved and impact in such a way as to make a real difference in the lives of inmates, staff and the animals” (Office of the Deputy Commissioner of Women, 1998, p. 123). More recently, a comprehensive assessment of animal programs in prison by Furst (2011) shares the benefits of such programs to prisoners, animals, and their communities.

Insight can be gained from therapy dogs and applied to offering support and treatment and specifically to a trauma-informed approach to facilitate emotional regulation, relational connection, and healing generally. The offering of humaneness may be its core benefit. This is a unique and insightful contribution to forensic nursing practice and research and other criminal-justice-related fields.

Conclusions

A frequent comment made about visiting therapy dogs, regardless of the site—ranging from seniors’ facilities to university health centers—is that others do not understand what the visiting dogs bring to their lives. Case in point, Kevin and Jake shared a holiday card with Kisbey and her handler: “Colleen, Merry Christmas to you and your dogs, they really brighten up our lives and we are very grateful. It’s the best Christmas gift we can get. Thank you again, Kevin & Jake.” It is imperative that we undertake systematic, robust, multidisciplinary research to arrive at an understanding of the impact of AAI.

A possible starting point is applying a lens of evidence from a specific area comparable with what the therapy dogs appear to offer. We focused here on the SAMHSA evidence-informed principles and applied specifically to prisoners. This begins to illuminate both what therapy dogs offer and the need for increased understanding of their impact. Documenting the work of the therapy dogs expands and supports the work of practitioners who are dedicated to transforming prison, addiction, and mental health care using a trauma-informed approach. As practitioners seek ways to reach, engage, and support those with very traumatic lives and significant difficulty connecting to others, therapy dogs can be a helpful bridge. The effortless humaneness of the dogs’ interactions with prisoners can be a great lesson.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

This article has been reviewed by the Saskatchewan St. John Ambulance Therapy Dog program, and its content was shared with available prisoners and staff involved with the program at the Regional Psychiatric Centre in Saskatoon, Saskatchewan.

This study was supported by the Canadian Institutes of Health Research, Institute of Neuroscience, Mental Health & Addiction.

References

- American Veterinary Medical Association. American Veterinary Medical Association Web site. 2015. Retrieved from <https://www.avma.org/KB/Resources/Reference/human-animal-bond/Pages/Human-Animal-Bond-AVMA.aspx>
- Beck A. The biology of the human–animal bond. *Animal Frontiers*. 2014; 4(3):32–36.
- Beck AM, Katcher AH. Future directions in human–animal bond research. *American Behavioral Scientist*. 2003; 47(1):79–93.
- Berry, T. *The dream of the earth*. San Francisco, CA: Sierra Club Books; 1990.
- Besthorn FH, Saleebey D. Nature, genetics, and the biophilia connection: Exploring linkages with social work values and practice. *Advances in Social Work*. 2003; 4(1):1–18.
- Burger E, Stetina BU, Turner K, McElheney J, Handlos U. Dog-assisted therapy in prison: Emotional competences and emotional status of drug-addicted criminal offenders. *Journal of Veterinary Behaviour: Clinical Applications and Research*. 2011; 6(1):79–80.
- Canadian Centre on Substance Abuse. *Best advice on collaboration for addiction and mental health care*. Ottawa, ON: Author; 2014.
- Correctional Service Canada. Regional psychiatric centre. n.d. Retrieved from <http://www.csc-scc.gc.ca/institutions/001002-4009-eng.shtml>
- Corrigan P, Kuwabara S, O'Shaughnessy J. The public stigma of mental illness and drug addiction. Findings from a stratified random sample. *Journal of Social Work*. 2009; 9(2):139–147.
- Dell C, Chalmers D, Bresette N, Swain S, Rankin D, Hopkins C. Creating healing spaces: The experiences of First Nations and Inuit youth with equine-assisted learning. *Child and Youth Care Forum*. 2011; 40(2):319–336.
- Dell CA, Kilty JM. The creation of the expected Aboriginal woman drug offender in Canada: Exploring relations between victimization, punishment, and cultural identity. *International Review of Victimology*. 2012; 19(1):1–18. DOI: 10.1177/0269758012447215 [PubMed: 24795492]
- Demers, J. *Warehousing prisoners in Saskatchewan: A public health approach*. Regina: Canadian Centre for Policy Alternatives; 2014. Retrieved from <https://www.policyalternatives.ca/publications/reports/warehousing-prisoners-saskatchewan>
- Derkzen, D., Booth, L., McConnell, A., Taylor, K. *Mental health needs of federal women offenders (Research Report R-267)*. Ottawa, ON: Correctional Service of Canada; 2012.
- Fazel S, Bains P, Doll H. Substance abuse and dependence in prisoners: A systematic review. *Addiction*. 2006; 101(2):181–191. [PubMed: 16445547]
- Fournier AK, Geller ES, Fortney EV. Human–animal interaction in a prison setting: Impact on criminal behavior, treatment progress, and social skills. *Behavior and Social Issues*. 2007; 16(1):89–105.
- Furst, G. *Animal programs in prison: A comprehensive review*. Boulder, CO: Lynne Rienner Publishers; 2011.
- Gallace, A., Spence, C. The neglected power of touch: What the cognitive neurosciences can tell us about the importance of touch in artistic communication. In: Dent, P., editor. *Sculpture and touch*. Surrey: England: Ashgate Publishing Limited; 2014. p. 107–124.

- Gillett, J., Weldrick, R. Effectiveness of psychiatric service dogs in the treatment of post-traumatic stress disorder among veterans. Hamilton, ON: McMaster University; 2014.
- Handlin L, Hydbring-Sandberg E, Nilsson A, Ejdeback M, Jansson A, Uvnas-Moberg K. Short-term interaction between dogs and their owners: Effects of oxytocin, cortisol, insulin and heart rate. *Anthrozoos: A Multidisciplinary Journal of the Interactions of People & Animals*. 2011; 24(3): 301–315.
- Havey J, Vlasses FR, Vlasses PH, Ludwig-Beymer P, Hackbarth D. The effect of animal-assisted therapy on pain medication use after joint replacement. *Anthrozoos: A Multidisciplinary Journal of the Interactions of People & Animals*. 2014; 27(3):361–369. DOI: 10.2752/175303714X13903827487962
- Held, CA. Unpublished doctoral dissertation. Pacifica Graduate Institute; California: 2006. Horse girl: An archetypal study of women, horses, and trauma healing.
- Herrington CJ, Chiodo LM. Human touch effectively and safely reduces pain in the newborn intensive care unit. *Pain Management Nursing*. 2014; 15(1):107–115. [PubMed: 24602430]
- Jasperson R. An animal-assisted therapy intervention with female inmates. *Anthrozoos: A Multidisciplinary Journal of the Interactions of People & Animals*. 2013; 26(1):135–145.
- Kahn PH. Developmental psychology and the biophilia hypothesis: Children's affiliation with nature. *Developmental Review*. 1997; 17(1):1–61.
- Kamioka H, Okada S, Tsutani K, Park H, Okuizumi H, Handa S, Mutoh Y. Effectiveness of animal-assisted therapy: A systemic review of randomized controlled trials. *Complementary Therapies in Medicine*. 2014; 22(2):371–390. [PubMed: 24731910]
- Katcher, A., Beck, A., editors. *New perspectives on our lives with companion animals*. Philadelphia: University of Pennsylvania Press; 1987.
- Krause-Parello, CA. Working dogs for wounded warriors: Effects of animal-assisted therapy on PTSD. TriService Nursing Research Program. n.d. Retrieved from http://orsp.kean.edu/external/documents/Parello_Triservice.pdf
- Kruger, KA., Serpell, JA. Animal-assisted interventions in mental health: Definitions and theoretical foundations. In: Fine, AH., editor. *Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice*. London, England: Academic Press; 2006. p. 21–38.
- Langley Animal Protection Services. Special programs. n.d. Retrieved from <http://www.lapsbc.ca/about-us/special-programs/fraser-valley-institution-partnership/>
- Lubbe C, Scholtz S. The application of animal-assisted therapy in the South African context: A case study. *South African Journal of Psychology*. 2013; 43(1):116–129.
- Lysack M. Environmental decline, loss and biophilia: Fostering commitment in environmental citizenship. *Critical Social Work*. 2010; 11(3):48–66.
- Maharaj N, Haney CJ. A qualitative investigation of the significance of companion dogs. *Western Journal of Nursing Research*. 2014; doi: 10.1177/0193945914545176
- Martin W, Minatrea N, Watson J. Animal-assisted therapy in the treatment of substance dependence. *Anthrozoos: A Multidisciplinary Journal of the Interactions of People & Animals*. 2009; 22(2): 137–148.
- Matheson FI. Implications of trauma among male and female offenders. *International Journal of Environmental Research and Public Health*. 2012; 9(1):97–99. [PubMed: 22470280]
- Mental Health Commission of Canada. *Together against stigma: Challenging how we see mental illness*. A report of the 5th International Stigma Conference. Vancouver: Author; 2012.
- Metzner R. The split between spirit and nature in Western consciousness. *Noetic Sciences Review*. 1993; 25:4–9.
- Midgley, M. *The ethical primate: Humans, freedom and morality*. London, England: Routledge; 1994.
- Miller SC, Kennedy C, DeVoe D, Hickey M, Nelson T, Kogan L. An examination of changes in oxytocin levels in men and women before and after interaction with a bonded dog. *Anthrozoos: A Multidisciplinary Journal of the Interactions of People & Animal*. 2009; 22(1):31–42.
- Montalvan, LC. *Until Tuesday*. New York, NY: Hyperion; 2011.
- Nebbe, L. Nature therapy. In: Fine, A., editor. *Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice*. San Diego, CA: Academic Press; 2000. p. 385–411.

- Office of the Correctional Investigator. Annual report of the Office of the Correctional Investigator 2013–2014 (Cat. No. PS100-2014E-PDF). 2014. Retrieved from <http://www.oci-bec.gc.ca/cnt/rpt/pdf/annrpt/annrpt20132014-eng.pdf>
- Office of the Deputy Commissioner for Women. Pet facilitated therapy in correctional institutions. Ottawa, ON: Correctional Service of Canada; 1998.
- Office of the Deputy Commissioner for Women. Women offender programs and issues. Ottawa, ON: Correctional Service of Canada; 2004.
- Power, J., Beaudette, J. A qualitative study of self-injurious behavior in treatment centers (Research Report R-294). Ottawa, ON: Correctional Service of Canada; 2013.
- Public Safety Canada. Mental health action plan for federal offenders. 2014. Retrieved from <http://www.publicsafety.gc.ca/cnt/cntrng-crm/crrctns/mntl-hlth-ctn-pln-eng.aspx>
- Robin M, ten Bense R. Pets and the socialization of children. Marriage and Family Review. 1985; 8:63–78.
- Rock M, Buntain BJ, Hatfield JM, Hallgrímsson B. Animal–human connections, “one health,” and the syndemic approach to prevention. Social Science & Medicine. 2009; 68(6):991–995. [PubMed: 19157669]
- Sabloff, A. Reordering the natural world: Humans and animals in the city. Canada: University of Toronto Press; 2001.
- Soine L. Warrior Canine Connection—Puppy training program tackles PTSD and TBI. Social Work Today. 2013; 13(4):16.
- St. John Ambulance Canada. Therapy dog program. n.d. Retrieved from <http://www.sja.ca/English/Community-Services/Pages/Therapy%20Dog%20Services/default.aspx>
- Substance Abuse and Mental Health Services Administration. Trauma-informed care in behavioral health services. Treatment Improvement Protocol (TIP) Series 57. Rockville, MD: Author; 2014.
- Suval, L. The surprising psychological value of human touch. n.d. Retrieved from <http://psychcentral.com/blog/archives/2014/03/10/the-surprising-psychological-value-of-human-touch/>
- Teghtsoonian K. Depression and mental health in neoliberal times: A critical analysis of policy and discourse. Social Science & Medicine. 2009; 69(1):28–35. [PubMed: 19427730]
- Wilson, S. Research is ceremony: Indigenous research methods. Halifax: Fernwood Publishing; 2008.
- Wilton, G., Stewart, LA. Outcomes for offenders with concurrent substance abuse and mental health disorders (Research Report R-277). Ottawa, ON: Correctional Service of Canada; 2012.
- Wu, ASY. Understanding gendered pathways to criminal involvement in a community-based sample: Relevance of past trauma with female offenders (Electronic thesis and dissertation repository, paper 1182). London, ON: University of Western Ontario; 2013.
- Yount RA, Olmert MD, Lee MR. Service dog training program for treatment of posttraumatic stress in service members. US Army Medical Department Journal. 2012:63–69. [PubMed: 22388685]