Human-Canine Interaction and its Impact on Women in Long-Term Addictions Treatment

by

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St. Lawrence College
Kingston On
Dedication

For Rob Stewart,

You have shown me that nothing is impossible; dedication and passion can change the world. You expect better, so better, it will be.
Abstract

The present study takes place in a women’s long-term addictions treatment centre in Eastern Ontario. The aim of this exploratory study was to determine if the presence of a dog has a positive impact on the clients in the treatment centre. A literature review was completed, where it appears that there is a lack of research in this area pertaining to this particular population. The participants were 11 current clients between the ages 22 and 58, and 10 current staff members. One-on-one semi-structured interviews were completed with client participants and questionnaires were completed independently by staff participants. Information regarding wellbeing was sought. The information provided by all participants resulted in 8 themes, namely unconditional love, grounding, responsive to distress, safety, a home environment, responsibility, comfort, and teacher. The results of this study indicate the potential benefits a dog can provide to the women in these long-term addictions treatment centre and offers many avenues for future research. Many limitations were identified in this study, such as a small sample size and self-report data, but as this study is exploratory, it also offers many recommendations or future research.
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Chapter I: Introduction

Addiction is a disease of the brain (Copersino, 2017). Neurobehavioural adaptations developing from the combination of genetic predisposition and chronic use of substances, which gradually reinforce substance use urges, decrease willpower and the strength to resist the urges, and reduce the awareness of the increasing strength and variety of triggering stimuli (Copersino, 2017). The World Health Organization (WHO, n.d.) defines substance abuse as the hazardous or harmful use of substances that are psychoactive. Dependence can develop and cause many negative consequences including: use despite negative consequences, inability to control use, tolerance increase, and withdrawal when not used (WHO, n.d.). Addiction develops from persistent misuse of mood-altering substances, which causes dependency. The Centre for Addictions and Mental Health (CAMH, n.d.) explains that addiction can be described in terms of the four C’s; failure to control, cravings, compulsive use, and use in spite of consequences. Substance abuse is difficult to stop due to the immediate positive reinforcement received from use (CAMH, n.d.). Maté (2010) asserts that addiction develops as a form of self-medication to soothe the individual’s pain. He also states that past trauma and abuse are a common finding with those who have addictions. In order to treat addiction, it is important to determine why those with addictions are self-soothing in order to develop better ways for them to cope (Maté, 2010).

Along with the large body of research regarding addiction and treatment, is a growing amount of research regarding gender differences and addiction. Studies have identified gender differences among individuals who have addictions (Storbjörk, 2011). Trauma and Post Traumatic Stress Disorder (PTSD) are common in the histories of women who have developed addictions (van der Walde, Urgenson, Weltz, & Hanna, 2002; Kruk & Sandberg, 2013). van der Walde, Urgenson, Weltz, and Hanna (2002) state effective treatment for women must address the gender specific issues that occur.

A lot of people have pets and enjoy the company of animals. It seems there has been a growing interest in the potential benefits of interacting with animals. It is widely accepted that the desire to connect with animals comes from an emotional need (Vining, 2003). Silcox, Castillo, and Reed (2014) found that the positive impact of animals has been demonstrated across numerous areas including psychological, social, and behavioural. Hosey and Melfi (2014) found a large amount of research regarding the benefits of interacting with animals, such as improved emotional health and wellbeing. Based on this information, it is possible that a dog present in a long-term addictions treatment centre, could improve the wellbeing of those who interact with him. Many of the women interact with the dog, and based on the above information, there may be untapped benefits that he could be providing. For the purpose of the current study, human-animal interaction is defined as talking, petting, walking, sitting with, or watching the dog. These activities can be initiated by the human or dog.

The goal of this exploratory study is to investigate whether the presence of a dog positively impacts the wellbeing of the clients in a women’s long-term addictions treatment. This topic was considered a suitable choice for multiple reasons. Despite ample research regarding addictions, and separately, the benefits of human-animal interactions, there is limited research
regarding them together. A review of the literature yielded no findings of research investigating the impact a non-therapy dog has on the wellbeing of women in long-term addictions treatment.

There is ample research regarding the gender differences in the development of addictions (Beckman, as cited in van der Walde, Urgenson, Weltz, & Hanna, 2002; Gueta & Addad, 2014; Kruk and Sandberg, 2013; Nelson-Zlupko, Kauffman, & Dore, 1995; Storbjörk, 2011), gender specific addiction treatment needs (Gueta & Addad, 2014; Neilson-Zlupko, Kauffman, & Dore, 1995), and the benefits of human-animal interaction (Wesley, Minatrea, & Watson, 2009). As stated above, research investigating the impact of a companion pet on women in long-term addictions treatment centres was not found. The main objective of this study is to explore whether the presence of a dog positively impacts the women in a long-term addictions treatment centre through a qualitative design utilizing semi-structured interviews.

Once the topic and population was identified, an extensive literature review was completed. The literature review focuses on addictions, addictions treatments, gender differences in addiction, human-animal interaction, and animals used in treatment. Many different sources were investigated to gather this information. Similar and differing views and findings were compared and contrasted. Gaps in literature were also identified. Following the literature review, a detailed method is presented entailing both client and staff participant selection, the utilization of semi-structured interviews to gather information from client participants and a questionnaire to gather information from staff participants. Next, the results from the interviews were reviewed to identify initial themes. Information provided regarding their wellbeing, reduction or increase of feelings or symptoms, and changes in mood, behaviour, or thoughts after interactions with Ky was sought and used to determine the overall impact Ky has on the wellbeing of all participants. A discussion follows summarizing the results, highlighting the strengths and limitations of the study, and identifying implications and recommendations for future research.
Chapter II: Literature Review

The Financial Cost of Addiction

The annual cost of substance abuse in Canada is just below $40 billion annually (Herie & Skinner, 2010). The Canadian government spends $26.3 million each year, which is provided by Canada’s Substance Use and Addictions Program (SUAP), on prevention and treatment of substance use (Government of Canada, 2016). This money supports new, evidence-based initiatives to aid in the prevention and treatment (Government of Canada, 2016). This financial cost shows the severe impact and prevalence of addiction across Canada. While the numbers are large, it does not include the nonfinancial impacts of addiction, such as destroyed relationships, health problems, and loss of life. The cost, financial and other, of addiction is profound.

The Biopsychosocial Perspective

The biopsychosocial perspective is the most widely accepted approach to understanding addiction and treating addiction (Herie & Skinner, 2010). According to the biopsychosocial perspective, addiction is not a biological, psychological, or social disorder, but a combination of the three factors (Maté, 2010). The biological factor refers to genetic predisposition, which influences the likelihood of developing an addiction. Psychological factors refer to the mind, while social refers to relationships. These different aspects include protective factors and risk factors that contribute to the development of an addiction (Herie & Skinner, 2010). Protective factors and risk factors will encourage or hinder addiction respectively, regardless of the presence of a genetic predisposition (Maté, 2010). The Centre for the Application of Prevention Technologies (CAPT, 2015) defines protective factors as characteristics that decrease the effect of risk factors and likelihood of negative outcomes, such as developing an addiction. Risk factors on the other hand, increase the likelihood of negative outcomes (CAPT, 2015). These characteristics can be biological, such as genetic predisposition, social, including family and culture, as well as psychological, pertaining to mental health (CAPT, 2015). Both of these factors are cumulative and present in multiple contexts, such as relationships and society (CAPT, 2015). Protective and risk factors are negatively correlated, meaning the more risk factors present, the less there are protective ones (CAPT, 2015). These factors influence the individual over time and are linked to multiple consequences (CAPT, 2015).

Maté (2010), a Canadian physician known for his expertise in addiction, agrees that addiction is not solely a biological disease, but influenced by the combination of biopsychosocial factors. He also states that the substances themselves are not addictive because, throughout history, many groups have used them for ceremonial and other purposes without developing addictions. If the drugs themselves were addictive, everyone who used them would become addicted (Maté, 2010). Maté (2010) defines addiction as any behaviour that provides temporary relief or pleasure that is continued despite negative long-term consequences.

Through his own research, Maté (2010) found that the environment plays a huge role in addiction development. Environmental influences, such as trauma or attachment in childhood will actually activate or deactivate the genetic predisposition for developing an addiction respectively (Maté, 2010). Psychological factors and social relationships can actually change the biology of people (Maté, 2010). A genetic predisposition to addiction can influence its development, but alone does not cause it (Maté, 2010). Maté (2010) declares that addiction
develops as a form of self-soothing for pain. Addictive substances and addictive behaviours distract from or soothe pain (Maté, 2010). He suggests that in order to treat addiction, the focus needs to be shifted from questioning why the individual has the addiction, to why there is pain. Based on this information, using treatment options that work to reduce and overcome emotional pain, should help individuals recover from addictions.

**Addictions Treatment**

Maté (2010) asserts that addiction should be looked at as an individual’s attempt to solve a problem, rather than a disease or problem. The Centre for Addiction and Mental Health (CAMH, n.d.) states that addictions treatment needs to be unique to the individual; the same treatment does not work for everyone (CAMH, n.d.). The addiction type, severity, motivation, and support system the individual has all factor in to determining appropriate treatment (CAMH, n.d.). The various treatment options include self-help program and groups, counselling, addictions education, and harm reduction (CAMH, n.d.). Harm reduction does not attempt to stop use but reduce the risk of use (CAMH, n.d.). Methadone treatment and clean injection sites are examples of harm reduction strategies (Maté, 2010). Programs include detox to stabilize the individual, inpatient short-term and long-term programs, and outpatient services (Canadian Centre for Addictions, 2016). As previously stated, treatment must be tailored to the individual due to many factors. Gender is one of those factors (Storbjörk, 2011).

**The Unique Experience of Women**

Gender differences have been found within individuals who have addictions (Storbjörk, 2011). Women who develop addictions experience unique and different negative consequences than men (Beckman, as cited in van der Walde, Urgenson, Weltz, & Hanna, 2002; Gueta & Addad, 2014; Kruk and Sandberg, 2013; Nelson-Zlupko, Kauffman, & Dore, 1995; Storbjörk, 2011). These consequences impact many different aspects of women’s lives. Research has identified gender differences in relation to the physical costs of use, use patterns, and psychosocial features (Neilson-Zlupko et al., 1995).

Trauma has been identified in the literature as a factor that increases the risk of addiction, particularly for women (Maté, 2010). van der Walde, Urgenson, Weltz, and Hanna (2002) along with Kruk and Sandberg (2013) found trauma to be a common factor when looking at the histories of women who have developed addictions. van der Walde et al. (2002) also state that self-medication using drugs and alcohol occurs due to Post-Traumatic Stress Disorder (PTSD) that commonly develops in women who have been abused sexually, psychically, or emotionally. Women deal with trauma and abuse differently than men (van der Walde, Urgenson, Weltz & Hanna, 2002). For example, some women internalize their anger, develop depression or anxiety, have low self-esteem, have a difficulty trusting others, or develop behaviours that are self-destructive (Langeland & Hartgers, as cited in van der Walde et al., 2002). Addiction, among those with trauma histories, may have begun as a form of self-medication (Maté, 2010). In these cases, using substances may have provided a sense of control, reduced pain, created a connection with other people, or helped them feel at peace.

Women experience unique social as well as emotional consequences of drinking (Gueta & Addad, 2014). Nelson-Zlupko, Kauffman, and Dore (1995) found that women experience more negative views and feelings along with fairly low expectations of themselves. When
women enter recovery, guilt and shame may be present due to stigma regarding traditional
gender roles (Sanders, 2012). Sanders (2012) notes that men experience it as well, but not to the
extent women do. Moreover, Sanders (2012) asserts that women’s groups were formed in
reaction to stigma and that these groups allow for discussion around this stigma in order to
overcome it.

Regarding mental health, women with addictions generally suppress their feelings and are
at a greater risk of developing depression or anxiety (Beckman, as cited in van der Walde,
Urgenson, Weltz, & Hanna, 2002).

Luminet, Cordovil de Sousa Uva, Fantini, and de Timary’s (2016) study looked at 158
participants, all who were alcohol dependent. 55 of their participants were women, while 103
were men (Luminet et al., 2016). The purpose of this study was to investigate the association
between depression and craving during detoxification and the moderating impact alexithymia
and gender had (Luminet et al., 2016). The researchers found that cravings increased when
depressive mood increased for women. The strength of this association was positively correlated
with the level of trouble describing their emotions (Luminet, Cordovil de Sousa Uva, Fantini, &
de Timary, 2016). A limitation noted by the authors was the lack of examination regarding the
motivation and reinforcement to drink (Luminet et al., 2016). Despite limitations, these authors
recommend gender specific treatment.

Storbjörk (2011) completed a study to determine the impact gender has on addictions
treatment experiences, social situations, use, and life-domain problems. Structured interviews
were conducted with 1865 participants, who had begun new treatment for their addiction.
Storbjörk (2011) found more differences than similarities between men and women in regards to
addiction. One finding noted by the author was, among substance users, women more frequently
report severe family problems in relation to abuse (Storbjörk, 2011). The author notes the self-
report format for the study as a limitation, but many studies use self-report to gather similar data.

Kruk and Sandberg (2013) completed a qualitative study with 28 women of low to
marginal income, who were active or former substance users. The participants were interviewed
regarding their thoughts about their therapeutic needs while transitioning from active use to
recovery (Kruk & Sandberg, 2013). The participants provided information on their personal
experiences, identified strategies that helped them, as well as what hindered their previous
attempts to enter recovery (Kruk & Sandberg, 2013). These researchers found depression,
shame, anxiety, and affective disorders occur at higher levels in women with addictions (Kruk &
Sandberg, 2013). One of the primary barriers, noted by the authors, for women seeking to enter
recovery is the current addictions treatment framework (Kruk & Sandberg, 2013). Three core
needs were identified by study participants: safety, normalization/structure, and social
connection (Kruk & Sandberg, 2013). A limitation of the study, noted by the authors, was the
participants. The authors stated that women who had not found addictions treatment to be
successful were more motivated to participate as they were seeking change in the current
treatments (Kruk & Sandberg, 2013). Kruk and Sandberg (2013) also noted that their participants
were not representative of the entire populations, as over half of the participants were still in
active use, homeless, and socially marginalized.
As shown above, gender impacts addiction in many different ways. The high likelihood of trauma, emotional difficulties, societal consequences, stigma, and biological differences make the experience of women dissimilar to men. Due to the many differences, gender specific treatment is recommended (Luminet, Cordovil de Sousa Uva, Fantini, & de Timary, 2016). If Maté (2010) is correct, and women develop addictions as a form of self-medication, their treatment must not only stop their use, but target their pain.

**Woman’s Treatment**

Complex factors create a unique set of challenges for women and therefore treatment needs to be tailored specifically to address these challenges (Gueta & Addad, 2014; Neilson-Zlupko, Kauffman, & Dore, 1995). Payne (2010) completed a study regarding passionate self-acceptance in women recovering from addictions. Through their literature review, they found that for women, developing the skill of managing emotions and changing how they relate to others has been recognized in the process of recovery (Miller & Sternmac, as cited in Payne, 2010). Developing and maintaining positive connections with other individuals, terminating negative messages, coping, and self-care have been identified as factors increasing resilience when dealing with difficult situations (Lynch, as cited in Payne, 2010).

**Animals**

Many homes around the world have companion animals in them. Animals become part of the family. Many people grow up with, experience new things, and mourn the loss of their animals. Animals are able to provide humans with comfort, meet emotional needs, promote the development of self-esteem, increase feelings of safety, and encourage learning (Crawford et al.; Rosenkoetter, as cited in Silcox, Castillo, & Reed, 2014). Mccune et al. (2014) state that research has shown the human-animal relationship can offer social support and help improve psychological wellbeing as well as self-esteem. This demonstrated the important role animals play in the lives of humans. Previous studies identified the methods of these types of studies were weak with small sample sizes, low statistical significance, and not using control groups, but Mccune et al. (2014) found that current studies have improved this. Mccune et al. (2014) did identify some of the risks in using animals in treatment or intervention which include possible injury, allergies, and infections. Like any animal, there is always a chance of being bitten, or tripping over the animal, but these risks can be minimized. Choosing friendly animals with a mild temperament should greatly reduce the risk.

**Human-Animal Theories**

Anthrozoology, or human-animal studies (HAS) looks at the interaction between humans and animals (Silcox, Castillo, & Reed, 2014). This field of study is solely focused on human-animal interaction. There are Anthrozoology programs offered at universities and colleges. This demonstrated the amount of interest and research in this area. The many health benefits of the human-animal bond are supported by a large body of research (Horowitz, as cited in Silcox et al., 2014).

Silcox, Castillo, and Reed (2014) reviewed and presented the research regarding the human-animal bond, the benefits, and its application. The authors review some of the theories of the human-animal bond, including, the aforementioned Anthrozoology, self-psychology, and attachment theory. Self-psychology, another theory developed in the early 1970s, looks at the
environment and its impact on the self, which is seen as the core of personality (Wolf, as cited in Silcox, Castillo, & Reed, 2014). Self-psychology identifies three main motivation areas, including the mirror, which is the need for appreciation and admiration (Brown, as cited in Silcox et al., 2014). Based on this theory, animals are able to meet this mirroring need humans have (Silcox et al., 2014).

Attachment theory defines attachment as feeling safe, secure, and better able to handle stress (Fraley, as cited in Silcox et al., 2014). The original theory does not include animals, but could be applied to the human-animal bond. This information identifies the important role that companion animals play in their relationship with humans (Silcox et al., 2014). This article describes multiple theories regarding the needs animals are meeting for humans. In each theory reviewed, benefits were found, such as feeling safe and improved health. This provides evidence that this unique interaction, bond, or relationship between humans and animals is beneficial in multiple areas. The authors also noted AAT cost effective and saw a reduction in the impact of various disabilities, including physical, mental, and emotional.

Human-Animal Findings
Wesley, Minatrea, and Watson (2009) conducted a study which assessed animal-assisted therapy’s (AAT) effect on therapeutic alliance in group therapy with individuals who have addictions. The participants were 231 adults, including men and women, who had addictions to one or more substances. They were randomly divided into a control group, without a dog, and an experimental group, which had a therapy dog (Wesley et al., 2009). Over the 26 sessions, participants filled out questionnaires chosen to evaluate therapeutic alliance (Wesley et al., 2009). It was shown that, overall, the experimental group had an enhanced therapeutic alliance over the control group (Wesley, 2009). This included cannabis, methamphetamine or polysubstance dependent individuals, men and women, pet owners, and clients who are court-ordered. The authors assert that with this enhanced therapeutic alliance, the likelihood of recovery increases (Wesley et al., 2009). In this study, AAT was not found effective for participants who had alcohol addictions, dual diagnosis, or those under investigation by child protective services (Wesley et al., 2009). The authors were unable to explain these results, but still recommend AAT as an effective option for addiction treatment (Wesley et al., 2009). AAT can aid in retention, decrease stress, and motivate participation (Wesley et al., 2009).

Through their research, Silcox, Castillo, and Reed (2014) found that the positive impact of animals has been demonstrated across numerous areas including psychological, social, and behavioural. An animal’s presence can increase trust, allow rapport to develop, and encourage the individual to feel safe (Chandler, Portrie-Bethke, Minton, Fernando, & O’Callagan, as cited in Silcox et al., 2014). Emotional attachment to animals can develop and become an essential role in the life of the individual (Silcox et al., 2014). Animals can make people feel protected, loved, and secure which in turn improves their wellbeing (Silcox, 2014). Animals also offer humans unconditional love and support emotionally (Risley-Curtiss, Holley & Wolf, as cited in Silcox et al., 2014). Animals have also been found to increase social interactions when used in interventions, as individuals have an increased likelihood of interacting with others (Morley & Fook, as cited in Silcox et al., 2014). Companion animals have a positive impact on the emotional and mental wellbeing along with physical health of humans (Silcox et al., 2016).
Payne, DeAraugo, Bennett, and McGreevy (2016) reviewed the current research regarding attachment bonds between humans and dogs, and humans and horses. The authors explored the alignment each species had with the attachment theory (Payne, DeAraugo, Bennett, & McGreevy, 2016). Dogs have been found to exhibit following and proximity seeking, which are attachment behaviours (Seman et al., as cited in Payne et al., 2016). Petting a dog can cause its heart rate and fear levels to decrease (Silverdecker et al., as cited in Payne et al., 2016). Through their literature review, the authors state they found ample evidence of human-dog attachment (Payne et al., 2016). In their study, attachment occurred in both the dog-human and horse-human relationships (Payne et al., 2016).

Balluerkaa, Muelac, Amianod, and Caldenteyd (2015) completed a study with adolescence in residential care, who had mental health difficulties and traumatic experiences in childhood. The purpose of the study was to examine animal-assisted-psychotherapy’s (AAP) influence on their psychosocial adaptation. There were 63 participants, who were divided into two groups, the treatment group and the control group (Balluerkaa, Muelac, Amianod, & Caldenteyd, 2015). Compared to the control group, the AAP group showed improved social skills, decreased hyperactive behaviour, improved attention, and their attitudes became more positive towards teachers (Balluerkaa et al., 2015). This study provides evidence regarding the usefulness of AAP for psychosocial adaptation with this population (Balluerkaa et al., 2015). The authors note a few limitations in their study such as participants not being randomly assigned to groups and a small sample, but positive result were still shown (Balluerkaa et al., 2015).

Odendaal and Meintjas (2003) studied human and companion animal positive behaviour and the subsequent neurophysiological correlates. They found that the positive interactions between humans and dogs resulted in physiological changes in the brain, such as increased levels of dopamine and endorphins, in both species. On average, a significant blood pressure decrease occurred between 5 and 24 minutes into the interaction. Earlier studies also found a reduction in the blood pressure of both parties (Odendaal & Meintjes, 2003). This current study, along with early studies was able to show that human-animal interaction can be a mutually beneficial experience.

Kamioka et al. (2014) reviewed the evidence provided in randomized controlled trials of animal assisted therapy (AAT). Based on their review of these studies, the authors state that AAT may be effective for individuals with addictions, depression, and schizophrenia. Small sample sizes and conducting lower quality randomized controlled trials were listed as limitations (Kamioka et al., 2014).

Hosey and Melfi (2014) completed a review of the literature regarding the terms: human-animal relationships (HAR), human-animal interaction (HAI, and human-animal bonds (HAB). The authors found a wide range of psychological and physiological benefits were found in individuals who own companion animals or interact with them (Hosey & Melfi, 2014). Changes in brain activity which result in reduced stress and increased relaxation have been found when individuals observe animals even without interaction (Sugawara et al., as cited in Hosey & Melfi, 2014). Hosey and Melfi (2014) did criticize previous studies by noting a lack of consistency in the research with regards to the terminology used in different context. The type of animals studied, agricultural, companion, laboratory, or zoo animals, seemed to determine the types of
words used. The studies they reviewed also usually fail to provide a definition for the chosen term, such as relationship or bond, which leaves it up to the reader’s interpretation. Bonds usually refer to a mutually beneficial relationship, but these studies are only looking at it from the human’s perspective, not the animals. This lack of consistency can lead to misinterpretations and presumptions regarding the research (Boivin, Lensink, Tallet, & Veissier, as cited in Hosey and Melfi, 2014). The authors identify a lack of empirical evidence, research regarding animals welfare and why interacting with them is beneficial. Despite the flaws listed in their research, Hosey and Melfi (2014) noted many benefits have been found regarding human-animal relationships, bonds, and interactions.

While only one of these studies uses a similar population to show the benefits of animals, all of these studies show the benefits of human-animal interaction, whether it is AAT, a companion animal, or the presence of an animal. Many of the unique needs of women seeking treatment for addiction may be met using animals. Animals have been shown to positively impact emotional, social, physiological, mental, and behavioural needs. This information further supports the purpose of this study.

**Research Criticisms**

Multiple limitations have been noted regarding research on the benefits of human-animal interaction, relationships, and bonds. These limitations can be viewed as flaws in the research, or alternately, as recommendations for future research. The previous articles are a good starting point and many of these limitations can be easily addressed. The lack of clear definitions can be corrected if future studies provide definitions of these terms to ensure readers are not misinterpreting them. Some criticism is conflicting; Hosey and Melfi (2014) pointed out the lack of research regarding the animals’ wellbeing but Odendaal and Meintjas (2003) studied the impact these interactions had on animals and references to earlier studies that had done the same. With such a large body of research, things can be missed, but with each limitation listed, it provides researchers with a clearer path for improvements in future research.

**Conclusion**

The above review of the literature has provided information regarding the financial cost of addiction, a perspective on what is thought to cause it to develop, an overview of addictions treatment, the unique experience of women, women’s addictions treatment, theories of the human-animal connection, the benefits of animals from previous studies, and the noted criticisms.

Literature was not found regarding using animals with the same population of this study. Wesley et al. (2009) looked at participants who had additions, but gender differences were not assessed and a therapy dog was used in treatment, instead of naturally occurring in the environment. This shows that it may be a previously uninvestigated area which should be focused on in future research. The literature did provide information on women-specific needs for addictions treatment and also the benefits animals can have on humans. Many of the needs identified for women were also areas where animals have been shown to help. Things such as emotional difficulties and trust issues are experienced by women, which are also areas where animals have been proven to help in the past. A dog can provide unconditional love (Silcox,
2014), attention (Balluerkaa et al., 2015), and help to calm (Silcox, 2014) women who are going through many transitions and challenges while they are in treatment.

The long-term treatment centre where this study was completed focuses on uncovering the pain that caused the addiction and improving the emotional, mental, physical, and spiritual aspects of the women’s lives. Learning about addiction is actually a smaller component of treatment as it is seen as developing as a way to cope with other issues. Some of the focus is on dealing with emotions, like shame, guilt, anger, self-worth, self-esteem, and anxiety, and also on building better relationships with others.

One unique aspect of the women’s long-term addictions treatment centre is the inclusion of a dog named Ky, whose care is the responsibility of all residents. Ky is a rescue dog that has been residing at the treatment centre since he arrived as puppy about five years ago. Residents are permitted, and even encouraged, to interact with him freely. Though not trained as a therapy dog, Ky’s impact on the women has been described positively by staff. Given previous research which supports the benefits of human-animal interaction, it is possible that Ky has a meaningful role in the wellbeing of women at the treatment centre. The information provided in this literature review supports the idea that Ky, the dog of the long-term women’s treatment centre, will positively impact the women.
Chapter III: Method

Client Participants
The study client sample included 11 women between the ages 22 and 58, all whom met the inclusion criteria. The inclusion criteria for this study were: women, who were a resident of the women’s long-term addictions treatment centre where the study took place, who could understand, read, and write in English, were remaining at the treatment facility prior to and immediately after the interviews were scheduled to be conducted, and those who had been at the treatment centre for a minimum of one week. Clients were excluded from the study if they did not meet the inclusion criteria. Along with what the literature says, many of the clients to had one or all of the following: trauma in their past, PTSD, anxiety, or depression.

Staff Participants
The study staff sample included 10 women currently employed at the long-term addictions treatment centre, who had been in the position for a minimum of one month, and had day or afternoon shifts in their shift rotations. Staff who solely work night shifts were excluded, as clients are usually sleeping during this time. They were also excluded if the staff did not have a minimum of one shift on days or afternoons each week. The exclusion criteria were included to ensure adequate opportunity for observation of interactions between clients and Ky.

Informed Consent Procedure and Ethical Approval
This study was approved by the St. Lawrence College Research Ethics Board.
All of the clients that met the inclusion criteria were gathered as a group and introduced to the project and the consent form (Appendix A). Each potential participant was provided with a copy of the consent form to review. An explanation of the project topic was given and the consent form read aloud by the researcher to all eligible participants. The researcher indicated that participation was voluntary and not part of their treatment.

During the meeting, potential participants were invited to ask any questions they may have regarding the study and informed they may approach the researcher individually at a later time if questions should arise. Participants were encouraged to take some time to review the consent form and process the information independently before deciding, but were told that they may submit their signed consent forms at the end of the meeting and up to 48 hours later, if they were interested in participating. At the end of the meeting, the researcher reiterated that consent is voluntary and participants may withdraw from the study at any time without penalty. When participants signed their consent form, it was witnessed and also signed, by the researcher.

The same consent procedure was followed for potential staff participants, but the researcher reviewed the staff consent form (Appendix B) individually with staff instead of as a group.

Design
A qualitative study was conducted using a narrative inquiry approach, applying one-on-one semi-structured interviews with client participants and questionnaires for staff participants. Following the data collection, an inductive thematic analysis was completed. Identified themes
were also presented in a table (Table 1) identifying the frequency each theme was identified by both participant groups.

**Setting and Materials**

The study took place in a women’s long-term addictions treatment centre in Eastern Ontario.

The materials used included: the Interview Questions (Appendix C), Staff Questionnaire (Appendix D), paper, a pen or pencil, a private room, two chairs, an audio recorder, and a computer.

**Measures**

Self-report using a one-on-one semi-structured interview was used to gather qualitative data from client participants. This method was chosen as it is an efficient way to gather self-report data in an organized format. The semi-structured format made the interview process seem more natural and allowed participants to explain their thoughts and feeling regarding the topic. The researcher was also able to ask for elaboration depending on what information was provided.

An independently competed self-report questionnaire was used to gather qualitative data from staff participants. This method of data collection was chosen as, like the semi-structured interview, it is an efficient way to gather self-report data in an organized format. The questionnaire format was chosen due to the differing staff work schedules and it being less disruptive to providing support to clients. The questionnaire format still allows for the data to be collected from staff, but it can be completed independently by the staff members when they have time, which will not impact client services.

**Client Participant Procedure**

When consent forms were returned, a sign-up sheet was posted to allow client participants to indicate the times they were available over the following week to complete their interview. Each interview took between 7 and 22 minutes to complete. The length of the interviews ranged from 5 minutes to 28 minutes and was dependent on how much information the participant provided.

For the participants’ interview, they were brought to a private room in the facility to increase their comfort and ensure privacy. Prior to beginning the interview, the participant was assigned a code number and the interview process was explained. They were asked if they had any questions.

All participants consented to having their interview recorded using an audio recording device. The device was placed on a small table beside the participant and researcher to ensure all information was recorded accurately and completely. The participant was told that the recording device will remain on until the interview is complete, unless they wish to speak off the record, then the recorder can be paused until they wish to begin again. The participant was also told that once the interview was complete and the device turned off, they may ask any further questions. The researcher indicated that notes would also be taken during the interviews to assist the researcher in following along when transcribing the recordings later. They were informed that
recordings would be kept for a maximum of one week and until all interviews could be erased, the recording device remained in a locked drawer of a locked office in treatment centre when not in use.

If any participants had not consented to the audio recorder being used, the researcher would explain that participant’s responses would be recorded on a paper copy of the interview form. Like in the audio recording procedure, they were informed that they could indicate at any time if they did not wish certain information to be recorded, otherwise, the researcher would write down everything that was said. The participant was also told they may ask questions at any time during the interview. The paper copies were kept in the same location as the audio recorder and shredded after transcription to an electronic word document.

For all interviews, the researcher explained that the interview consisted of 14 questions from the Interview Question Sheet (Appendix C), but additional questions may be asked depending on what information the client provided. The researcher reminded each participant that the audio recording and the paper copy of their interview did not contain their name, were only reviewed by the researcher, and were destroyed once their interview was transcribed onto an electronic Word document.

The following procedure was used for each participant. Once the participants were ready, if using the audio recorder, it was turned on and the researcher identified the participant’s code number and the date of the interview. The researcher asked the questions, in order, from the Interview Question Sheet, to ensure that all interviews were completed the same way. If the participants expressed that they did not understand the question, the researcher would reread it and explained it to them. The researcher also asked for elaboration on certain things that the participants brought up regarding Ky. Once all of the questions were answered, the researcher asked the participants if there was anything else that they would like to add, and then the recorder was shut off. The participants were then asked if they had any thoughts or questions about the interview and thanked for their participation.

After the interview was completed, the researcher placed the recording device in a locked drawer in a locked office, when not in use, until all interviews were transcribed and erased. The researcher transcribed each interview into a separate electronic Word document containing the interview questions as well. All of the participants’ spoken words, sound such as laughing, and gestures noted during the interview that are related to the questions, were recorded. The interview was saved in its own Word document, using the participants code number as the document name, to ensure participant data did not get combined or misplaced. Once the transcription process was complete, participants’ audio recording was erased and their paper interview shredded.

The following process for data analysis is taken from the instructions provided in Braun and Clark (2006). The subsequent six phases of data analysis were implemented.

For the first phase of analysis, each interview was read a minimum of two times in order to increase familiarity with the data, then each interviews were read actively, which involved searching for possible patterns within. The researcher took notes to record these patterns to aid in
identifying possible themes later. Each interview was then compared to all other interviews to identify patterns across all data collected. As the interviews were read, the researcher was looking for recurring words, phrases and concepts to create an initial list of potential ideas regarding the information found.

Once phase one of the data analysis process was completed, phase two began where the initial codes were generated by grouping data. Because the research was being conducted to specifically investigate how Ky impact the wellbeing of the participants, the themes identified were data-driven. Based on this, the aim was to identify codes in relation to this research question. Coding, which was done manually, involved highlighting the specific words and sentences of each participant’s interview individually, and then matching them up with similar data found in the other interviews, creating groups. All possible themes were identified, but primarily data provided regarding participants wellbeing included: reduction or increase of feelings or symptoms, and changes in mood, behaviour, emotions, or thoughts after interactions with Ky, and any treatment related impacts were sought.

After the data was collected and coded, phase three began. The coded data was sorted into broader themes. All themes were identified at this stage; some main themes, while others subthemes. Phase four entailed reviewing all of the identified themes to pick out the ones with sufficient data to support them. Some themes were combined, while other were broken down. All interviews were then reread to ensure the data matched the themes identified and to gather any additional information that supported them. If the data did not match, some recoding would be done. Once this was done, the themes were known, along with how they related to one another.

Phase five then began, which was where the themes were named and a thorough analysis of each theme was done to identify subthemes, how themes related to the others, and their relation to the research question. The information gathered through the data analysis was then be used in phase six, where the information was reported and evaluated in relation to the research question.

Staff Participant Procedure

When consent forms were returned, staff were provided with the Staff Questionnaire (Appendix D) to complete independently. The researcher asked if they had any questions before they begin it and informed them that they may approach the researcher if they had any questions at a later time. They were instructed to complete the questionnaire independently and then return it to the researcher within one week of receiving it.

Once questionnaires were returned, each staff’s questionnaire data was typed into a separate Word document labeled with the staff’s participant code number. Once all questionnaires were typed and saved, they followed the above data analysis, taken from Braun and Clarke (2006) that was used for client participants. Staff and client data was kept separate, but compared. After themes had been identified from client participant data, the staff data was used as a comparison to determine if staff data supported or contradicted the themes identified in client data.
Chapter IV: Results

It is important to note that at the time the interviews were conducted, the client participants had been at the treatment centre ranging from 11 days to 10.5 months. In all, 72.73% of client participants had been at the treatment centre for under 3 months, while the remaining 27.27% had been there over 3 months. This is an important factor to consider since the length of time clients have been at the treatment centre directly impacts the amount of time they have had to interact with Ky.

The information provided by the eleven client participants using the Client Interview Questions (Appendix C) and by ten staff participants using the Staff Questionnaire’s (Appendix D) resulted in eight themes being identified, which can be seen in Table 1 below. These themes are: unconditional love, grounding, responsive to distress, safety, a home environment, responsibility, comfort, and teacher. Table 1 outlines the frequency each theme was identified by both client and staff participants. All themes, except teacher, had a minimum of three client participants who provided information that supported it, but also required supporting information from staff participants.

Table 1

<table>
<thead>
<tr>
<th>Theme Identified</th>
<th>Clients</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unconditional Love</td>
<td>45.45%</td>
<td>80.00%</td>
</tr>
<tr>
<td>Grounding</td>
<td>27.27%</td>
<td>50.00%</td>
</tr>
<tr>
<td>Responsive to Distress</td>
<td>27.27%</td>
<td>60.00%</td>
</tr>
<tr>
<td>Safety</td>
<td>36.36%</td>
<td>50.00%</td>
</tr>
<tr>
<td>A Home Environment</td>
<td>63.64%</td>
<td>30.00%</td>
</tr>
<tr>
<td>Responsibility</td>
<td>63.64%</td>
<td>80.00%</td>
</tr>
<tr>
<td>Comfort</td>
<td>72.73%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Teacher</td>
<td>0.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

All themes chosen related to the main objective of this study, which was to explore whether the presence of a dog positively impacts the women in a long-term addictions treatment centre. The below themes are presented in the order they were identified.

Unconditional Love

Unconditional love emerged as a theme when it was directly stated in multiple client participant interviews and supported by staff questionnaires. During the interviews, unconditional love was identified by 45.45% of client participants in relation to Ky. Client Participant 03, who had been at the treatment centre the longest of all client participants, mentioned unconditional love in regards to the connection she feels she has made with him. Client Participant 11 offered, “And animals give unconditional love, so it’s nice when you’re feeling down or even when you’re happy, to just engage with the dog.”
Further support for unconditional love was provided by 80.00% of staff participants. Not only did staff participants identify that the dog provides unconditional love, some reported that he actually teaches the clients using this unconditional love. Staff Participant 02 reported, “Ky teaches clients forgiveness by showing unconditional love.”

Study participants reported that, not only does Ky provide love, but it is not conditional; they feel his love regardless of the circumstance, which may positively impact their wellbeing. Staff Participant 04 identified that unconditional love is, “hugely positive for chronic addicts,” and Ky is able to provide this to them. This statement not only provides evidence to support unconditional love as a theme, but also provides evidence for the positive impact of Ky.

**Grounding**

Tull (2016) defines grounding as a coping strategy utilizing the senses, including touch, that is used to help someone remain connected to or bring them back to the present. Grounding is commonly used with individuals who have PTSD who experience flashbacks and dissociation (Tull, 2016). As previously stated, PTSD commonly develops in this population, so staff at the treatment centre teach clients to use grounding during times of distress.

Grounding was identified by 27.27% of client participants in this study. These participants identified that Ky helps them with grounding. Client Participant 02 offered, “I use him for grounding to get me out of my head and into the present moment.”

This participant added that staff have encouraged her to pet Ky as a means of grounding. Client Participant 03 also referred to Ky as a means of grounding stating that Ky, “takes me out of my head.”

While the percentage of client participant in the current study who identified grounding is low, it was still identified as a theme because grounding can be an important tool to use for individual from this population, as traumatic events have usually occurred. The low percentage could be explained by the clients’ differing lengths of time at the treatment centre. The clients who identified Ky as a method of grounding had been at the treatment centre longer and had been taught this technique by staff when they were in distress. Not all client participants in this study have been taught this skill yet or have experienced distress events since arriving at the treatment centre.

Grounding was also identified by 50.00% of staff participants when asked about Ky’s role in the house and impact on clients. When asked about the benefits of having Ky at the treatment centre, Staff Participant 05 replied, “He can be a great grounding tool,” and he “Assists in grounding, which is used with the clients as they have high trauma backgrounds.”

As mentioned above, grounding is a tool used to bring an individual back to the present moment when experiencing distress. The positive impact of Ky is demonstrated as he is utilized as a way of managing emotional distress. Using Ky as a grounding tool may contribute improving this specific populations wellbeing.
Responsive to Distress

There was general agreement among participants for the idea that Ky responds to distress. This resulted in 27.27% of client participants identifying that Ky senses when individuals are in emotional distress and offers support. Client Participant 02 described a specific encounter, one time he sensed I was upset. He was far away and I was crying. He came up to me and was like, he just nudged me and it made me feel better. So it’s like yeah, he is a dog, but he’s also very aware of people’s feelings and wants to interact and it’s great.

Again, later in the interview she stated, “I think he senses if I’m upset or other people are upset.” Client Participant 03 verbalized something similar, “He just seems to know when you’re feeling down or upset. He comes to you to like comfort you.” Client Participant 07 identified, “He can definitely sense people’s emotions…”

Staff participant questionnaires yielded similar findings. Sixty percent of staff participants also recognised this behaviour. When answering the question about Ky’s role, Staff Participant 01 wrote, “Ky will often go to people who are experiencing more stress than normal.” Staff Participant 02 reported, “Ky will immediately run to a client if they are in distress to comfort them. He nudges their arm to show them he is there.” Staff Participant 04 answered, “He is intuitive. Ky goes to clients immediately if he senses they are sad, frightened, hurting.”

As the same behaviour was identified by multiple client participants and staff participants, and a positive change in emotion was identified, this behaviour may positively impact the wellbeing of clients at the treatment centre. Ky offers support to the clients and initiates the interactions himself. This could provide a feeling of support and comfort for clients.

Safety

36.36% of client participants identified Ky provides a sense of safety or security in the house. The terms: “security,” “protector,” “guard dog,” and “protective” were identified in client interviews. Client Participant 01 identified Ky’s role as giving residents a feeling of security. Client Participant 03 stated, “I feel like he’s a protector. And he does, when you walk.”

She then described a specific event when she was standing on a sidewalk with Ky and a man walked past them. She observed Ky watching the man approach and felt he was alert and protecting her. Client Participant 06 also described a time when a male delivery person entered the house and Ky barked at the man until staff was present to stop him. She stated, “I feel like he’s protecting us.”

Fifty percent of staff participants identified Ky provided a sense of security to clients as well as staff. Staff participants labelled Ky using the same or similar words identified by client participants. Staff Participant 01 wrote, “he takes on the “protector” role when new people arrive, especially men.” Staff Participant 03 reported, “He helps make the house feel more like a home and clients need to feel safe and welcomed to start the recovery journey.” Staff Participant 04 asserted that Ky, “Protects the house by announcing strangers, which fosters a feeling of safety.”
These results demonstrate Ky’s ability to take on a protective role in the house and make residents feel safe. This feeling of safety could directly impact the wellbeing of the women in this long-term addictions treatment centre.

**A Home Environment**

Of all client participants, 63.64% said Ky made the treatment centre feel more like home. Client Participant 01 reported that, “Ky’s role is to impact residents with a feeling of home…” Client Participant 03 said Ky’s role is, “to make it feel like a family home.” Client Participant 07 stated, “this place feels more like home, as I said, instead of it being an institution, and kind that kind of hospital type environment, ya know?” Client Participant 09 offered similar information to Client Participant 07, but further expanded on the idea by saying:

a lot of treatment centres are sterile and can be cold and, ya know, you feel like you’re-you really wanna go home to be cozy and at home, and I think he just adds to that to make it a home atmosphere. It’s good.

This theme was also identified by 30.00% of the staff participants. As previously reported within the safety theme, Staff Participant 03 wrote, “He helps make the house feel more like a home and clients need to feel safe and welcomed to start the recovery journey.” This statement also relates to the creation of a home environment.

This theme is similar to the previous theme, safety, but was included as a separate theme because the two themes, while mentioned together in some situations, were also mentioned separately by client participants. Not all clients who mentioned Ky creating a home environment discussed it from a safety point of view; they mentioned it in regards to the treatment centre feeling less institutionalized, reminding them of their homes, and creating a family environment. The results related to this theme support that Ky’s presence in the treatment centre helps create a homelike environment for some of the clients, which may positively impact their wellbeing.

**Responsibility**

Strong support was shown for the theme of responsibility when it was identified by 63.64% of client participants, who made statements regarding caring for Ky. Client participants offered suggested improvements regarding his wellbeing, and acknowledged caring for him, such as walking him, changing his water, letting him outside, bathing him, or cleaning up after him. Along with helping care for Ky, some client participants verbalized how caring for him helped themselves. Client Participant 03, who mentioned caring for him stated:

I like feeling like I’m taking care of somebody, like I’m needed in a way,” and “it’s just nice to have, like I said, a purpose other than doing my treatment program. But to have a purpose to take care of-like a responsibility…Just to have somebody to care for. Client Participant 07 expressed, “And also, kind of helping with the role of taking care of him kinda gives a bit of a purpose I find.”

Eighty percent of staff participants provided information supporting the responsibility theme. Eight-seven point five percent of these staff participants directly reported that Ky teaches the clients responsibility. Staff Participant 01 wrote, “Ky gives the residents an opportunity to start taking responsibility.” Staff Participant 04 recorded, “Builds skills in responsibility, accountability, in learning how to help take care of him.”
While in previously identified themes staff data provided support for client data, this data resulted in related but divergent perspectives among staff and client participants. The client data identified Ky as creating a sense of purpose or meaning, which relates more to emotional or interpersonal fulfillment. Staff participant, on the other hand, saw Ky as a useful skill building tool, specifically responsibility. While the data is divergent, it is still related, therefore was included into one theme. Having a purpose and learning to be responsible may increase an individual’s competency and improve their self-esteem, which could impact their wellbeing.

**Comfort**

This is an overarching theme that subsumes unconditional love, safety, responsive to distress, and a home environment. The information provided supporting the unconditional love, responsive to distress, safety, and a home environment themes all support an overall feeling of comfort with client participants. The theme of comfort was identified through client participants and staff participants directly stating the term or offering information that supported a feeling of comfort.

The majority, 72.73%, of client participants identified “comfort” or “calming” in their interview. When including the above listed themes that also apply, one hundred percent of client participants provide evidence to support Ky being a comfort to them. Client Participant 02 identified that Ky makes her feel more comfortable and helped her settle in at the treatment centre. Client Participant 03 identified Ky as a staff member, who she felt was non-judgemental and comforting. When asked about feeling different after interacting with Ky, Client Participant 03 also stated, “well I’ll say at least 99% of the time, my mood is lifted. Like even if I’m in a good mood, I end up in a better mood.”

Client Participant 07 commented that interacting with him can calm her down and she tends to spend more time with him when she is going through a difficult time. She also stated: ‘I’d say he has a positive impact on my treatment and if I’m feeling more comfortable in my environment, I’m going to feel more comfortable opening up about my feelings and difficult things I’m going through, to work through them. One of the reasons I wanted to come here actually was because there was a dog here in the house.”

One Hundred percent of staff participants identified that Ky offers clients comfort. This was identified through works like “comfort,” “a great friend,” “provide an emotional connection, and “companion,” and included the information provided for unconditional love, responsive to distress, safety, and home environment themes. Staff Participant 01 wrote:

“He makes the difference in a day sometimes. It gives people a place to be calm and pet him. I have seen that sometimes there is a mood change just by them spending time with him. I see the softer side of tough people when it comes to Ky.

Staff Participant 03 offered, “He shows clients that not all communication is verbal; sometimes just sitting there an showing your support can be what’s needed.” Staff Participant 05 reported, “He is a great shoulder to cry on and can soothe both clients and staff members.”
Teacher

This additional theme was found in the data collected from staff participants. It is included because, while it was not brought up by client participants, it was identified by 100.00% of staff participants, which is noteworthy. The staff participants reported that Ky actually teaches the clients. Multiple ideas were identified when staff participant were asked if Ky teaches the clients anything. Responsibility, patience, compassion, selflessness, consistency, love, structure, acceptance, grounding, and “Through silence, strength is discovered” were identified by staff participants. Many of the staff participants identified the same topics that were identified by client participants, but directly stated that Ky teaches these things to clients. This was illustrated in the response from one of the staff participants:

I believe Ky teaches the clients patience and to listen. He teaches them to be there for people as they would be there for you. He reminds them to be happy and excited about even little things. Ky teaches clients forgiveness by showing unconditional love. (Staff Participant 02)

Learning these types of skills from Ky should positively the clients’ wellbeing.
Chapter V: Discussion

When this study began, the primary goal was to determine if Ky, the dog living in a women’s long-term addiction treatment centre, had an impact on clients and what that impact was. To narrow it down, wellbeing became the primary focus. After a literature review provided evidence to support women-specific needs in addictions treatment, and separate evidence to support animals meeting some of the same needs with other populations, it was identified that a dog may meet some of the needs of the women in this particular treatment centre. As Ky is not a registered therapy dog, but primarily a pet, his potential benefits were previously uninvestigated. After completing semi-structured interviews with client participants, and providing questionnaires to staff participants, eight themes were identified: unconditional love, grounding, responsive to distress, safety, a home environment, responsibility, comfort, and teacher, which support Ky having a positive impact on the wellbeing of clients.

Themes

Unconditional love, which was identified by just under half of the client participants and almost all staff participants, directly relates to Ky having a positive impact on clients wellbeing. Love was identified as a positive emotion, which can be helpful for individuals with addictions. As previously stated in the literature review, addiction can form as a coping mechanism for pain (Maté, 2010). By the time these individuals seek treatment, they may have destroyed many relationships with partners, family, and friends, which could make them feel very alone and unloved. Those with addictions often feel lonely (Kemp & Butler, 2014). Kemp and Butler (2014) assert that addiction can be overcome with love and compassion. Mickel and Hall (2006) describe love as a factor that assists in the healing process and that fear and love cannot coexist. This may mean that by experiencing Ky’s love, clients experience an increase in healing and a decrease in fear. When entering recovery in treatment, experiencing love from an animal, who they perceive to care for them unconditionally, could help to improve their overall wellbeing.

Grounding, as mentioned in the results, can be a useful tool for individuals who have experienced trauma. Grounding exercises assist individuals to focus on the present moment and disconnect from the emotional pain they experience (UN Women, n.d.). The intention of grounding is to help individuals take back control over their emotions and connect them to the present (UN Women, n.d.). Grounding includes many different activities that rely on senses (Tull, 2016).

This theme was identified by three client participants and supported by half of the staff participants. As Ky was identified as a grounding tool for multiple clients, he may be useful to other clients as well. Using him for grounding could help to gradually reduce the trauma-response experienced, which would improve overall wellbeing. Practicing grounding using Ky independently could also decrease the amount of support clients need from staff when in distress. This may help them learn to use the skill without needing assistance, which may not always be available to them. Many clients initially need more support from staff in order to learn and develop adaptive skills for recovery. Being able to independently identify and properly use the tools they have found effective will help them to be more successful once they leave treatment.
Responsive to distress is another theme that was identified. When negative emotions surface, ignoring them or trying to suppress them may exacerbate distress. The data supports that Ky is responsive to those in distress. Not only does Ky provide support, but he may be teaching how support can reduce emotional discomfort. Sable (1995) also found pet owners reported pets to be responsive to distress. The clients at the treatment centre, where the current study took place, are always encouraged to seek out staff when they are in distress or need support. Historically, newer clients are less likely to approach staff. This may be due to feeling uncomfortable discussing these issues with staff who they are not familiar with yet. Ky may be more approachable to clients, and has been shown to initiate the interactions. Ky’s support might work as a stepping stone for clients until they are more comfortable talking with staff members.

Ky’s responsiveness to distress may also help the women feel less alone and provide them with silent support. This may help them to learn to seek support from others and help to develop a deeper emotional awareness, such that they can identify emotional distress and eventually seek support when needed. Ky’s presence could also be a signal for clients to complete an emotional check-in to determine how they are feeling and then act based on their needs. Sable (2013) states that the impact animals have on wellbeing is helpful in emotional regulation and coping with trauma and stress. Ky’s responsiveness to distress has been identified as positively impacting the wellbeing of some of women at this long-term addictions treatment centre.

Matsuda, Tsuda, Kim, and Deng (2014) investigated wellbeing in relation to perceived social support in Asian college students and found them to be related. In this particular study, social support was defined as providing resources, psychological and material, from others which are intended to improve an individual’s ability to deal with stress (Matsuda, Tsuda, Kim, & Deng, 2014). The perceived social support had a positive impact on their wellbeing (Matsuda et al., 2014). Cohen et al (as cited in Matsuda et al., 2014) asserts that a large body of research in social science has proven perceived social supports have positive effects on wellbeing. Based on the information provided by participants and support from other studies, it is believed that Ky’s responsiveness to distress positively impacts the wellbeing of the women at the long-term treatment centre.

The theme of safety was identified by client participants and further supported by staff participant. According to Maslow’s hierarchy of needs theory, safety is a basic need (D’Souza & Gurin, 2016). If basic needs are not met, an individual cannot meet other non-basic needs (D’Souza & Gurin, 2016). Safety is identified by Judith Hermann as foundational in trauma treatment (Trauma Recovery, 2013). As noted in the literature review, Kruk and Sandberg (2013) reported three core needs identified by their study participants, who were women with addictions and of low income, safety, normalization/structure, and social connection. Those in treatment often experience quite vulnerable emotions and for a long time have not been in situations that are safe enough to express and deal with them. Knowing they are safe helps to keep clients more comfortable while in treatment. As it is an all-female staff and clientele, Ky takes on a protective role, especially in the presence of men. As some clients have experienced sexual, physical, verbal, and/or emotional abuse perpetrated by men, Ky’s reaction may help these women feel safer. Eventually, these women may learn to better cope and overcome the difficulties trauma may be creating for them, but Ky’s protection may give them piece of mind.
The feeling of safety that Ky creates should positively impact the wellbeing of the clients at the treatment centre.

Based on the information provided by over half of client participants and three staff participants, the theme home environment was identified. Clients at the treatment centre where this study took place must commit to a minimum 3 month stay, but are able to remain at the treatment centre up to 1 year. Most individuals are encouraged to stay beyond the 3 months. There is not a predetermined completion of treatment date as clients are assessed on an individual basis to determine when they are ready to leave. Due to the length of stay at this treatment centre, it may begin to feel like a home for clients. Clients celebrate birthdays, holidays, and sobriety milestones with the other clients and staff during their time in treatment. As many participants stated, Ky helps to create a home environment. He seems to take on the role of the family dog. Sable (1995) argues that quality of life can be enhanced by a family pet. This helps to increase the clients feeling of a home environment and positively impact their wellbeing.

Responsibility was also identified. The results indicate that Ky helps clients to develop and practice responsibility. Pets can offer the opportunity for clients to provide nurturing to others (Sable, 1995). As he lives at the treatment centre, he relies on the humans in his life to care for him and ensure he is well looked after. With up to 12 clients at the treatment centre, they are encouraged to care for him, which could include walking, bathing, and clean up after him. Many of the clients stated that they enjoy doing it. Along with creating responsibility, participants also identified it creating a feeling of being needed or having a purpose. Thoits (2012) studied people who volunteer and found that having a purpose positively impacted their wellbeing. The author adds that having a purpose is positively correlated with wellbeing; as purpose increases, so does wellbeing (Thoits, 2012). These findings support that caring for Ky positively impacts wellbeing.

Unlike the above themes, comfort was identified as an overarching theme, which is further supported by some of the previous themes. Many participants, clients and staff, offered that Ky provides comfort. The information provided for the themes: unconditional love, responsive to distress, safety, and a home environment all are believed to further contribute to Ky increasing the comfort of clients. Sable (1995) argues that pets can provide comfort and help in stressful situations to reduce loneliness. Timko (as cited in Grosenick & Hatmaker, 2000) states that comfortable treatment settings encourage clients to remain in treatment. If comfort helps to keep clients in treatment, then that should improve their wellbeing.

The teacher theme differs from the others, as it was not identified by any client participants, but all staff participants. This theme was included because, according to staff participants, Ky does not just positively impact the clients, he is teaching them lessons. Some of the lessons identified by staff participants were: responsibility, patience, compassion, selflessness, love, structure, acceptance, and grounding. Many of these lessons may impact the clients’ wellbeing, but also their journey towards recovery.

The above information draws conclusions for the results of the present study and offers support as to how these themes relate to wellbeing. It was found that Ky provides many benefits
to the clients of a women’s long-term addictions treatment centre. As stated in the literature review, animals are able to provide humans with comfort, meet emotional needs, promote the development of self-esteem, increase feelings of safety, and encourage learning (Crawford et al.; Rosenkoetter, as cited in Silcox, Castillo, and Reed, 2014). Research has shown the human-animal relationship can offer social support and help improve psychological wellbeing as well as self-esteem (Mccune et al., 2014). Social interactions and relationships positively impact emotional wellbeing (Poerio, Totterdell, Emerson, & Miles, 2015). Understanding the potential positive impact Ky has can provide information on how he can be utilized with clients to improve their overall treatment experience.

**Strengths**

When this study began, there was not an expected result. Previous research on this topic and population had not been found, which would have indicated what may be expected. The data collected in this study is exploratory. This study adds to the current literature regarding the potential benefits of animals with varying populations and identified new population to further study. The articles cited in the literature review of the present study offer support regarding animals and their impact on humans. This study further reinforces the potential benefits animals can have on humans and identifies another population where they may be useful.

**Contributions to the Field of Behavioural Psychology**

The results of this study positively impact the Behavioural Psychology field by adding to the growing body of research on the potential benefits of animals, identifying a seemingly uninvestigated area of study for future research, and providing some implication that having dog, or other animals, in women’s long-term addictions treatment centre may positively impact the wellbeing of clients. This study offers many areas which could be further studied.

**Multilevel Challenges to Services Implementation**

**client level.** Addiction is a chronic incurable disease. Unlike other mental health issues, it cannot be controlled with medication. Once someone develops an addiction, they must fight a constant battle to remain in recovery. Most of the women in long-term treatment have tried other treatments or attempted to quit on their own, but were unsuccessful. Even once the women seek treatment and enter recovery, relapse is always a part of the disease and can be difficult for clients to deal with. If they do not use their recovery tools and keep working on their recovery, they can eventually relapse. When working with this population, it is imperative to educate them on the progression of the disease, including relapse to ensure that even if they relapse, they continue to work towards recovery.

**program level.** For addictions treatment to be effective, clients must actively participate in their recovery. This initially can be difficult, as by the time clients get to long term treatment, they have been using for a long time. It is important that staff develop a good rapport with clients and support them during the difficult times. If clients do not have a good relationship with staff, they will not receive the support and education needed to promote recovery. When clients have been using, they numb all emotions, so once they stop and enter treatment, they are dealing with a lot of different emotions that they may not have experienced in a long-time. It is the painful emotions that cause difficulty, and without support from staff in treatment, especially
in the first few months, they can lead to relapse. Staff members need to work on developing this relationship to help clients.

**organizational level.** One of the difficulties at the organizational level is addiction with co-occurring mental health issues. It can be difficult to know which one to treat first, or what symptoms are from addiction and what are mental health issues. It can be difficult to know what can be improved with increasing the focus on their recovery program, and what may need other treatment. Some organizations are trying to combine treatments, as they commonly occur together, but there are still gaps in services.

**societal level.** One common attitude regarding addiction recovery is that the addict should “just stop drinking”. They believe it is a lack of motivation and willpower. Many do not understand that it is not a choice people make, but a disease. With the common stereotypes around addicts, they are seen as weak and selfish individuals who don’t deserve to be treated equally. With the negative view of this disease, many individuals with addiction are ashamed of their disease and try to hide it. This may stop them from seeking the help they really need. Many individuals die from their addiction, but maybe the amount of deaths can be reduced with more public support.

**Limitations**

Multiple limitations have been identified in the present study. All of the data collected is self-report, which means it may be inaccurate. Self-report is dependent on what the participant is willing to share and may be altered by what they believe the researcher is looking for. The small sample size, lack of a control group, single gender, Ky, and all participants residing at the one treatment centre reduces the generalizability of the results. Ky himself is a limitation of the study because he is only one dog. Like humans, dogs come in all different forms and can have very different temperaments. He may have a positive impact on the women at the long-term treatment centre, but another dog may not. The lack of validated measures also limits the study. Another limitation of this study is the client participants. As noted in the results section, 72.73% of client participants had been at the treatment centre less than 3 months. This means they had fewer opportunities to interact with Ky and become familiar with him.

The results of this study are also not easily replicable; the interview and questionnaire were created without any expected result, which means the questions asked were not seeking specific information. If they were presented to individuals at other treatment centres, they may yield completely different results.

Based on these limitations, the results of this study cannot be generalized to populations beyond the current sample.

**Recommendations for Future Research**

While this study has many limitations, these limitations are opportunities for future research. This research has provided evidence that this is an area where untapped benefits may be discovered with further research. Based on Koslof’s checklist of guidelines for evaluating research and research claims, to improve the current study, future researcher should use a larger sample, more representative sample, men and women, an equivalent comparison group, more
than one dog, more objective data collection methods, a quantitative approach, and use multiple validated measures. Another suggestion is that the information that was elicited in individual interviews could be used to create a more comprehensive interview guide to be used with focus groups. Alternatively, it could be used to create questionnaires for quantitative measurement.

The present study has identified a starting point for future research, which can be taken in many different directions. Each theme could be studied separately more in depth using interviews or questionnaires, the perceived level of impact could be assessed using a Likert scale, a comparison of therapy and non-therapy dogs, women compared to men, or multiple dogs could be used and compared. Wellbeing could be further investigated and defined to create a clearer picture of what it means to participants and how they feel they are impacted by a dog or multiple dogs.
References


Appendix A - Client Consent Form


Principal Investigator: Mariah LaBelle

Name of supervisor: Dr. Leah Todd, C. Psych. (Supervised Practice)

Name of Institution: St. Lawrence College

Name of institution/agency: Lanark Leeds and Grenville Addictions and Mental Health (LLGAMH)- Tennant House

Invitation
You are being invited to take part in a research study. I am a student in my 4th year of the Behavioural Psychology Program at St. Lawrence College. I am currently on placement at Tennant House. As a part of this placement, I am completing a research project (called an applied thesis). I would like to ask you for your help to complete this project. The information in this form will help you understand my project. Please read the information carefully and ask all the questions you might have before you decide if you want to take part.

Why is this research study being done?
The purpose of this study is to determine the impact that Ky, the dog at Tennant House, has on your wellbeing. An interview has been developed to gather this information. We want to know if and how he impacts you. Your opinions and thoughts are important and I am asking for your help to determine his impact by asking you questions.

What will you need to do if you take part?
If you choose to take part in this study, you will be asked to complete a one-on-one interview with the investigator, Mariah LaBelle. Interviews will be recorded with an audio
recorder. This will be done to ensure the information provided is documented accurately and that information is not missed. After the interview, the researcher will transcribe the interview to an electronic Word document and then the recording will be erased. If you are not comfortable with the interview being recorded, please let the researcher know prior to signing the consent form. If at any time during your interview you wish to speak off-the-record, just tell me and I will stop the recorder. When you are ready to have me start the recording again, please let me know and I will say, “okay, I am starting to record again”. Your interview will be recorded on paper by the researcher during the interview instead. The interview will be done once and take about 15-20 minutes. You will be asked a series of questions regarding Ky and asked to elaborate on your answers. The interview will be completed at Tennant House in a private room to ensure confidentiality. The date and time you will complete the interview will be determined at the time the signed consent form is returned.

What are the potential benefits of taking part?
Potential benefits of taking part in this research study may include learning more about yourself and how Ky impacts you.

What are the potential disadvantages or risks of taking part?
The risks of participating in this project are minimal. Some of the questions may make you feel uncomfortable or even sad.

What happens if something goes wrong?
Everybody is different. If you do have any strong reactions to the interview questions, you may ask to take a break, stop the interview, talk to the myself or your addictions counsellor, and/or remove yourself from the study.

Will the information you collect from me in this project be kept private?
We will make every attempt to keep any information that identifies you strictly confidential unless required by law. Your name will not be used in any component of the study (e.g. recordings, data). You will be assigned a code number (e.g. “Participant 1”)
that will be used in place of your name during the study. The audio recording device will be kept at in a locked drawer in a locked office at Tennant House when not in use, until all recordings are erased. The recordings will only be reviewed by the researcher, Mariah LaBelle, and will be erased immediately after they are transcribed into an electronic Word document. Any computer files with study data will be kept on a password protected computer for the duration of the study. All information that can identify you will be kept in a locked filing cabinet at the Tennant House for 10 years and then destroyed. The results from the research are part of my thesis and will be published and made available at the St. Lawrence College library. They may also be published in professional journals or presented at conferences, but any such presentations will be of general findings and will never breach individual confidentiality.

Do you have to take part?
Taking part in this study is voluntary. It is up to you to decide whether or not to take part in this research project. If you choose not to participate or you choose to withdraw at a later time, it will have no impact on your treatment at Tennant House. If you do decide to take part, you will be asked to sign this consent form. Even after consent is signed, you are free to remove yourself from the study at any time. You are not required to provide a reason from withdrawing. If you choose to withdraw from the study, you can ask that your data not be used. Please let me know within a month’s time of your interview if you decide you want to remove your data.
Contact for further information

This research project has received ethical clearance from the Research Ethics Committee for Behavioural Psychology (REC-P) under the authority of the St. Lawrence College Research Ethics Board (SLC-REB).

The project was developed under the supervision of Dr. Leah Todd, my supervisor from St. Lawrence College. I appreciate your cooperation.

If you have any additional questions or concerns, feel free to contact me at:

mlabelle18@student.sl.on.ca.

You can also contact my College Supervisor, Dr. Leah Todd at:

ltodd@sl.on.ca

If you have concerns about the way this research is being conducted or about your rights as a participant, you may contact the St. Lawrence College Research Ethics Board at:

reb@sl.on.ca.
Consent

If you agree to take part in this research project, please complete the following form and return it to Mariah LaBelle within 48 hours of it being presented to you. A copy of this signed document will be given to you for your own records.

☐ I consent to having my interview recorded
☐ I don’t consent to having my interview recorded

By signing this form, I agree that:

✓ The study has been explained to me.
✓ All my questions were answered.
✓ Possible risks and possible benefits (if any) of this study have been explained to me.
✓ I understand that I have the right not to participate and the right to stop at any time.
✓ I am free now, and in the future, to ask any questions I have about the study.
✓ I have been told that my personal information will be kept confidential.
✓ I understand that no information that would identify me will be released or printed without asking me first or required by law.
✓ I understand that I will receive a signed copy of this consent form.

I hereby consent to take part in this research project

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Appendix B - Staff Consent Form

**Project title:** Human-Canine Interaction and its Impact on Women in Long-Term Addictions Treatment

**Principal Investigator:** Mariah LaBelle

**Name of supervisor:** Dr. Leah Todd, C. Psych. (Supervised Practice)

**Name of Institution:** St. Lawrence College

**Name of institution/agency:** Lanark Leeds and Grenville Addictions and Mental Health (LLGAMH)- Tennant House

**Invitation**
You are being invited to take part in a research study. I am a student in my 4th year of the Behavioural Psychology Program at St. Lawrence College. I am currently on placement at Tennant House. As a part of this placement, I am completing a research project (called an applied thesis). I would like to ask you for your help to complete this project. The information in this form will help you understand my project. Please read the information carefully and ask all the questions you might have before you decide if you want to take part.

**Why is this research study being done?**
The purpose of this study is to determine the impact that Ky, the dog at Tennant House, has on the clients wellbeing. A questionnaire has been developed to gather this information. We want to know if and how he impacts Tennant House clients. Your opinions and thoughts are important and I am asking for your help to determine his impact by asking you questions.

**What will you need to do if you take part?**
If you choose to take part in this study, you will be asked to complete a short questionnaire. You will be asked to fill out the questionnaire independently and then return it to Mariah LaBelle. After the questionnaire is returned, researcher will type the answers provided into an electronic Word document and then the paper questionnaire will be shredded. The questionnaire will take about 10-15 minutes to complete. It will ask a series of questions regarding your thoughts on and observations of Ky. The questionnaire will be provided to you at the time the signed consent form is returned.
Questionnaires will need to be returned the Mariah LaBelle within one week of receiving them.

**What are the potential benefits of taking part?**
Potential benefits of taking part in this research study may include learning more about how Ky impacts the clients of Tennant House.

**What are the potential disadvantages or risks of taking part?**
The risks of participating in this project are minimal. Some of the questions may make you feel uncomfortable or even sad.

**What happens if something goes wrong?**
Everybody is different. If you do have any strong reactions to the questionnaire questions, you may ask to take a break, stop the questionnaire, talk to the Mariah LaBelle, and/or remove yourself from the study.

**Will the information you collect from me in this project be kept private?**
We will make every attempt to keep any information that identifies you strictly confidential unless required by law. Your name will not be used in any component of the study (e.g. recordings, data). You will be assigned a code number (e.g. “Staff 01”) that will be used in place of your name during the study. After copied to a computer document, your paper questionnaire will be shredded. Any computer files with study data will be kept on a password protected computer for the duration of the study. All information that can identify you will be kept in a locked filing cabinet at St. Lawrence College for 10 years and then destroyed. The results from the research are part of my thesis and will be published and made available at the St. Lawrence College library. They may also be published in professional journals or presented at conferences, but any such presentations will be of general findings and will never breach individual confidentiality.

**Do you have to take part?**
Taking part in this study is voluntary. It is up to you to decide whether or not to take part in this research project. If you do decide to take part, you will be asked to sign this consent form. Even after consent is signed, you are free to remove yourself from the study at any time. You are not required to provide a reason from withdrawing. If you
choose to withdraw from the study, you can ask that your data not be used. Please let me know within a month’s time of your interview if you decide you want to remove your data.

**Contact for further information**

This research project has received ethical clearance from the Research Ethics Committee for Behavioural Psychology (REC-P) under the authority of the St. Lawrence College Research Ethics Board (SLC-REB). The project was developed under the supervision of Dr. Leah Todd, my supervisor from St. Lawrence College. I appreciate your cooperation.

If you have any additional questions or concerns, feel free to contact me at: mlabelle18@student.sl.on.ca.

You can also contact my College Supervisor, Dr. Leah Todd at: ltodd@sl.on.ca

If you have concerns about the way this research is being conducted or about your rights as a participant, you may contact the St. Lawrence College Research Ethics Board at: reb@sl.on.ca.
Consent

If you agree to take part in this research project, please complete the following form and return it to Mariah LaBelle within 48 hours of it being presented to you. A copy of this signed document will be given to you for your own records.

By signing this form, I agree that:

✓ The study has been explained to me.

✓ All my questions were answered.

✓ Possible risks and possible benefits (if any) of this study have been explained to me.

✓ I understand that I have the right not to participate and the right to stop at any time.

✓ I am free now, and in the future, to ask any questions I have about the study.

✓ I have been told that my personal information will be kept confidential.

✓ I understand that no information that would identify me will be released or printed without asking me first or required by law.

✓ I understand that I will receive a signed copy of this consent form.

I hereby consent to take part in this research project

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Appendix C- Client Interview Questions

Date:

1. How old are you?

2. Do you own any pets? If so what kind?

3. How long have you been at Tennant House?

4. How did you feel when you first arrived?

5. How would you describe your mood when you first arrived?

6. Who is Ky?

7. What is his role at Tennant House?

8. Do you interact with him? If so, how often?

9. Who primarily initiates your interactions?

10. How would you describe your interaction? What does it consist of?

11. When do you initiate the interaction?

12. Have you noticed feeling any different during or after interacting with Ky than you did before initiating contact with him? how?

13. Do you feel that you have made a connection with him? How?

14. Does he have an impact your treatment? How?
Appendix D- Staff Questionnaire

Human-Canine Interaction and its Impact on Women in Long-Term Addictions

Treatment- Staff Questionnaire.

Please complete the following questions and return this form to Mariah LaBelle.

Date: ________________________________

1) How long have you worked at Tennant House and how often do you work there?

2) Who is Ky?

3) What is his role at Tennant House?
4) What are the benefits to having Ky at Tennant House?

5) What are the negatives to having Ky at Tennant House?

6) Do you think Ky teaches the clients anything? If so, what?
7) What needs do you think he is meeting for the clients?

8) How would you describe the interactions you have seen between Ky and clients?

9) Do you think Ky impacts the clients’ treatment at Tennant House?
10) Does Ky help staff? If so, how?

11) Is Ky a necessary part of Tennant House?

12) If Ky was removed from Tennant House, how would things change?