

**A PILOT STUDY: ASSESSING THE EFFECTIVENESS OF AN ANIMAL-  
ASSISTED INTERVENTION IN REDUCING LONELINESS OF POST-  
SECONDARY STUDENTS**

by

Hilary Swan

B.Phil in Interdisciplinary Leadership, University of New Brunswick, 2015

A Report Submitted in Partial Fulfillment  
of the Requirements for the Degree of

**Masters of Education, Counselling**

in the Graduate Academic Unit of Education

Supervisor: Helen Massfeller, PhD, Faculty of Education

Examining Board: Roger Saul, PhD, Faculty of Education, Chair  
Jeffrey Landine, PhD, Faculty of Education  
Rice Fuller, PhD, UNB Counselling Services

This report is accepted by the  
Dean of Graduate Studies

THE UNIVERSITY OF NEW BRUNSWICK

May, 2018

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## ABSTRACT

Animal assisted interventions (AAI) are an increasingly popular tool in supporting post secondary students' mental health across institutions in North America. Majority of the existing research has explored AAI's effects on stress and anxiety, while this pilot study evaluated the effectiveness of an AAI program on symptoms of loneliness among university students ( $n = 20$ ). Using the UCLA Loneliness Scale (Version 3) as a pre and post measure, results revealed a slight decrease in self-reported loneliness scores following the AAI intervention, with no difference between males and females ( $n = 5$ ) reported either feeling "better" or "so much better" post intervention. Limitations of the study were identified along with recommendations for future research. Strategies for integrating AAI into counselling practices within a post-secondary environment were explored.

*Keywords:* animal-assisted therapy, post-secondary students, loneliness

## **DEDICATION**

I dedicate this report to my greatest four-legged friends and teachers Doc, Fergie, Reggie, Arthur and Sophie. Thank you for your unwavering love and support throughout this journey.

## **ACKNOWLEDGEMENTS**

Firstly, I would like to express my most sincere gratitude to my supervisor Dr. Helen Massfeller for her continuous support of my pilot study, for her patience, motivation, and immense knowledge. Besides my supervisor, I would like to thank the rest of my project committee: Dr. Rice Fuller and Dr. Jeff Landine for their insightful comments and encouragement throughout this process. I thank Rebecca Ward for extending her expertise of statistical analysis. I would also like to thank the University of New Brunswick and the New Brunswick Innovation Fund for funding this research project. Finally I would like to thank my friends and family for their patience, words of encouragement and support they have provided me throughout this process.

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## **Introduction**

Attending university often requires young adults to leave their home, enter a new social environment, establish new relationships, and adjust to new social norms. For some individuals the process of social adjustment is marked by a continued inability to develop relationships with other students and persistent feelings of social disconnection, leading some students to seek mental health services (Lee, Keough, & Sexton, 2002). Research has shown AAI's are particularly beneficial for individuals who are socially isolated or who have low levels of social support (McNicholas & Collis, 2000). Dogs, in particular, have been described as "social lubricants" and catalysts to social connectedness in daily life (Wood, Giles-Corti, & Bulsara, 2005). Consequently, the use of therapy dogs has increased in popularity in therapeutic settings (Fine & Beck, 2010; Hunt, Hart, & Gomulkiewicz, 1992; Richeson, 2003; Tedeschi, Fitchett, & Molidor, 2005).

Relationships are a core developmental task of early adulthood (Iarovici, 2014). For some university students being surrounded by hundreds or even thousands of their peers without forging the kinds of connections they crave only intensifies a sense of loneliness, which can lead to or exacerbate mental health difficulties, such as depression and anxiety, and can result in poor physical health (Iarovici, 2014). Post-secondary institutions have addressed student mental health needs using methods such as mindfulness (Lynch, Gander, Kohls, Kudielka, & Walach, 2011), cognitive-behavioural stress management (Hammerfald et al., 2006), and meditation (Burns, Lee, & Brown, 2011). While these efforts can be carried out through individual counselling, Regehr and colleagues (2013, p. 2) argued that "... universities must employ preventative

interventions that have the potential to reach larger groups of students and not merely rely on individual counseling services to meet student needs.” According to Boldt and Paul (2011), a group approach is ideal for addressing depression, anxiety, and interpersonal concerns. However, Boldt and Paul (2011) noted that engaging university students in group counselling can be challenging, and group attendance is generally low and inconsistent. Thus, counselling centre staff must seek alternative ways of offering mental health services to their students (Mier, Boone, & Shropshire, 2008).

The use of AAI’s to support post-secondary students in North America is becoming an increasingly popular modality due to its strengths as a preventative approach for reaching students (Crump & Derting, 2015; Daltry & Mehr, 2015; Dell et al., 2015; Grajfoner, Harte, Potter, & McGuigan, 2017). There is a need for further empirical research that explores the relationship between AAI’s and students’ perceived social connections on campus and mental health. In particular, the research on AAI’s and loneliness is limited (Binfet & Passmore, 2016).

The University of New Brunswick has utilized AAI since 2012, in the form of dog therapy de-stress events prior to student examinations and, more recently, twice per week at the Peer Support Centre and in common areas. While there has been wide participation and positive anecdotal feedback from the participants, no research has been conducted on how participation in the AAI influences student mental health outcomes. The focus of my pilot study was to explore the relationship between an AAI using a therapy dog and students’ experience of loneliness on campus.

# Review of the Literature

## Introduction

Mental health issues across university and college campuses have garnered a great deal of attention within the media. As a result of an increase in the demand for services, counselling centers are struggling to meet the needs of the students on campus (Kruisselbrink-Flatt, 2013). With such a high prevalence of stress, anxiety, and loneliness amongst students and limited mental health resources, a need for innovative approaches to help students is critical (Stewart, et al., 2014).

The following section will offer a comprehensive overview of the peer-reviewed literature regarding the use of AAI within postsecondary student populations. A specific focus will be reviewing AAI's role in reducing stress, homesickness, and loneliness or isolation amongst post-secondary students, and the integration and connection to university student services.

Animal-assisted interventions have become an increasingly popular intervention to reduce students' levels of stress and homesickness (Binfet & Passmore, 2016). For the purposes of this review of the literature, animal-assisted therapy and animal-assisted activities are grouped together under the more general term animal-assisted interventions (AAI). AAI is defined as "any therapeutic intervention that intentionally includes or incorporates animals as part of the therapeutic process or milieu" (Fine & Beck, 2010). Though AAI can include various therapeutic animals, dogs were chosen for the purposes of this study, as they have a long history in counselling and psychology, and are valued for their role as a social lubricant (Levinson, 1997; Wood, Giles-Corti, & Bulsara, 2005). Clients will often say things to a dog that they would be reluctant to share with a therapist

(Renck-Jalongo et al., 2015). Dogs were also identified as favoured therapy animals because they are unique in their capacity for interpreting and responding appropriately to human beings' attentional state as reflected by gaze, gestures, and body position (Renck-Jalongo et al., 2015).

The practice of AAI's on college campuses has grown rapidly in the United States, since researchers observed a correlation between stressed-out students and the benefits of interacting with therapy dogs (Bell, 2013; Dell, et al., 2015). Students expressed interest in having AAI programs on campus, as they believed such programming could initiate the formation of interpersonal relationships and provide comfort during a time when students are not able to readily access previous support networks (Adamle, Riley, & Carlson, 2009).

Omert (2009) confirmed that interacting with carefully selected dogs reduced individuals' self-reported stress, depression, homesickness, and feelings of isolation. In a more recent AAI study, Binfet and Passmore (2016) found reductions in students' perceived homesickness and increases in life satisfaction. Daltry and Mehr (2015) noted that AAI's were a beneficial intervention that universities could utilize in the promotion of student services, such as counselling services and group therapy, that students may otherwise find stigmatizing (Daltry & Mehr, 2015).

### **Post-secondary Student Stress**

Of American post-secondary students seeking mental health counselling services, approximately 47% report moderate to high levels of anxiety and an additional 33% experience stress significant enough to interfere with academic performance (Stewart, et al., 2014). As Bayram and Bilgel (2008) stated, social, intellectual, and emotional

pressures may contribute to the high prevalence of anxiety and stress among college student populations (Stewart, et al., 2014). Many clinicians are in agreement that stress and anxiety have significant implications for student quality of life and academic success (Cairns, Massfeller, & Deeth, 2010; Stewart, et al., 2014).

Stewart et al. (2014) conducted a pilot study to determine whether or not AAI would be an effective response to reducing levels of stress among university students. Most students reported feeling less stressed, and attributed their lack of stress to their interaction with the dogs. Other participants reported feeling calm and relaxed after spending time with the therapy dogs, and consequently feeling less anxious (Stewart, et al., 2014). Of those students, approximately 84% indicated that interacting with the therapy dog was the most helpful aspect of the AAI. Similarly, Reynolds and Rabschutz (2011) found students felt more calm and relaxed after interacting with therapy dogs, as evidenced by heart rate and blood pressure returning to normal ranges, and an increase in the levels of oxytocin and reduction in the level of the stress hormone, cortisol.

In a Canadian study, Dell and colleagues (2015) examined the immediate and long term effects AAI had on students' ability to cope with stress. The results indicated that 81% of participants responded with an affirmative statement and within that, 34% experienced a lasting impact and 45% shared that AAI had a calming effect at the time of the event (Dell, et al., 2015). Though this study showed a trend towards lasting reduction of stress, further research is required to explore the long-term effects of an AAI with dogs.

## **Reduction of Homesickness, Loneliness and Isolation**

Many first-year post-secondary students face the challenge of integrating successfully into their new campus community (Hastings & Cohn, 2015). Researchers have found that 20% to 75% of students experience feelings of homesickness, loneliness and isolation (Binfet & Passmore, 2016). In its mild form, homesickness can serve as a catalyst for developing coping skills and motivating healthy attachment to others (Dell et al., 2015). An intense experience of homesickness, however, can lead to social isolation, withdrawal, and debilitation (Binfet & Passmore, 2016). The task of establishing social relationships can be conceptualized as a developmentally common struggle, yet one that is increasingly important in a university setting detached from one's normal structure and social support network (Hastings & Cohn, 2015; Stewart, et al., 2014).

Kurdek (2008) recognized the important role pet dogs play as attachment figures in one's life. He identified four categories of attachment: 1) a secure base (viewed as sources of support); 2) safe haven (sought during difficult times); 3) proximity maintenance (touching dogs is pleasurable), 4) and separation distress (one misses pets/dogs). AAI programs that involve dogs can use these categories as a catalyst for the development of building healthy attachment skills and new social relationships (Kurdek, 2008).

## **Integration and Connection to School**

There has been consistent evidence that dogs act as social lubricants within the development and facilitation of new friendships among university students (Binfet & Passmore, 2016; Levinson, 1997; McNicholas & Collis, 2000; Wood, Giles-Corti, & Bulsara, 2005). AAI programs facilitated across North American universities have

succeeded in creating a less formal source of social support for students in comparison to potentially intimidating university clubs or associations, which were thought to provide social support (Binfet & Passmore, 2016). Binfet and Passmore (2016) suggested that informal sources of support were greatly needed amongst first-year students as admittance to the AAI group was highly sought after.

AAI's have provided a unique opportunity for universities to promote student services in an innovative, creative and cost effective manner (Stewart, et al., 2014). Daltry and Mehr (2015) found the use of AAI, coupled with an information booth and a counsellor to answer questions, was an effective strategy for reducing stigma and preconceived notions of counselling services. Seventy percent of the participants in AAI stated that they were now more likely to contact the counselling centre (Daltry & Mehr, 2015).

### **Purpose of the Study**

This study was designed as an exploratory pilot study. It was undertaken on a limited scale to identify how students responded to an AAI using a therapy dog. It aimed to determine if the use of an AAI delivered in a group format using a dog would influence the experience of loneliness among university students. The following research question was used to guide the focus of the pilot study: 'Do Animal-Assisted Interventions (AAI) using therapy dogs influence post-secondary students' experiences of loneliness?' A mixed methods approach was employed to gain depth in understanding through the use of multiple data sources (Hesse-Biber, 2010).

## **Method**

### **Research Context and Participants**

The Peer Support Centre advertises its weekly dog therapy room through posters, and through social media posts. There are also warning “therapy dog on premises” posters located on every entrance and exit door on the day of the event that acted both as a warning for students that may have allergies, and also as a reminder that the event was taking place for students that were interested.

Participants were randomly selected to volunteer for the study from university students that attended a weekly AAI session with a dog at the Peer Support Centre. Each student was invited to participate upon arrival at the AAI session. If the student was interested in participating, they were given a copy of the explanatory letter (Appendix A) and the informed consent form (Appendix B) to review. All participants were informed that they had the right to refuse participation and could withdraw from the study at any time without consequence. No inducements were offered to encourage participation. If a student agreed to participate a written informed consent was completed and signed.

### **UCLA Loneliness Scale (Version 3)**

The UCLA Loneliness Scale (Version 3) (Russell, 1996) is a self-report measure consisting of 20 items with 10 negatively stated (lonely) and 10 positively stated (non-lonely) items (Russell, 1996). This scale was chosen as it was initially developed to measure university students’ levels of loneliness (Russell, Peplau, & Ferguson, 1978). It is a short, 20-item general measure of an individual’s loneliness. The measure has high internal consistency (coefficient alpha = .96) and a test-retest correlation over a two-

month period of .73. Concurrent and preliminary construct validity is indicated by correlations with self-reports of current loneliness and related emotional states and by volunteering for a loneliness clinic (Russell, Peplau, & Ferguson, 1978). Participants were asked to respond to each item statement from responses of ‘never’, ‘rarely’, ‘sometimes’, or ‘always’ (Appendix C). Higher scores on the loneliness scale indicate higher levels of perceived loneliness.

### **AAI Feedback Form**

An AAI Feedback form (Appendix D) contained short answer questions that invited the student participants to share their experience with the therapy dog, their level of perceived social connectedness to campus and their overall experience of the AAI session. Students ( $n=5$ ) participated from faculties across campus, including Arts, Renaissance College, Business, and Law. Of those students three were females, and two were male. The years of study ranged from first to fourth year, with two students in their second year of university. Three of the participants had pets growing up, with a mix of both cats and dogs.

### **Intervention**

The AAI with a therapy dog took place in a highly populated and trafficked area in the Peer Support Centre, for a period of one hour, every week for five weeks. Students were invited to drop-in and interact with the therapy dog and other student attendees. Prior to the project, the attendance at the AAI sessions typically ranged from eight to sixty students per week. The intention was to collect a random sample of ten participants from each week, for three weeks for a grand total of thirty participants. However, actual

attendance for each event ranged from five to twenty-four students per week, of which twenty participants agreed to participate. All participants attended the University of New Brunswick, Fredericton, and voluntarily attended the Peer Support Centre sponsored AAI session held in the Student Union Building.

The AAI included the primary investigator, and a registered handler of St. John's Ambulance Therapy dog team with her Bernese Mountain therapy dog, "Rosi". Peer Support Centre student volunteers were present, however, they did not participate in the intervention, nor was data collected by them. No counselling services or psychoeducation was offered during the time of the intervention.

It is important to note that a specially trained and evaluated therapy dog and handler team was used in this intervention. All human-animal interactions carry certain risks, so the inclusion of a qualified handler-therapy animal team ensured a safe and therapeutic interactive experience for all humans and the animal involved. Both the handler and the therapy dog were also very comfortable with these constraints, as they had been providing an AAI at the Peer Support Centre for six months prior to the beginning of the pilot study.

## **Procedure**

Each participant completed a consent form and the UCLA Loneliness Scale (Version 3) (Russell, 1996) prior to the AAI session. Identification numbers were assigned to each questionnaire to keep the identity of the participants anonymous. During the AAI session participants interacted with the therapy dog in an unstructured, self-paced manner in a large room located in the Peer Support Centre. The dog handler was instructed to minimize her communication with the participants and the therapy dog.

The specific protocols for the student-dog interactions were in accordance with the memorandum of understanding between the St. John's Ambulance Therapy Dog Program and the University of New Brunswick (Appendix E). The PI was present in the room and engaged in passive observation of the participant-dog interactions. The duration of the AAI session ranged from five minutes to one hour.

At the end of the AAI session each participant was asked to complete the UCLA Loneliness Scale (Version 3) and feedback form before leaving the Peer Support Centre. Participants were informed that they could leave questions blank if they chose.

### **Data Analysis**

Data analyses included exploratory descriptive statistics and a mixed ANOVA. Qualitative data describing the students' experience of interacting with the therapy dog and handler was analyzed to identify key themes.

## **Results**

Participation numbers were substantially lower during the five-week data collection period than originally anticipated resulting in only twenty participants' data being collected and used in the statistical analysis. As this project was a pilot study, a paired-sample *t* test was initially conducted to compare pre- and post-scores on the UCLA Loneliness Scale (Version 3) for exploratory purposes. The analysis demonstrated a significant difference between pre- ( $M=50.65$ ,  $SD=5.82$ ) and post- ( $M=47.05$ ,  $SD=5.6$ ) test scores;  $t(19)=3.99$ ,  $p=0.001$ . The UCLA Loneliness Scale (Version 3) scores of the post-test were significantly lower than the pre-test with a mean difference of 3.6.

Considering the small sample size, an analysis of variance (ANOVA) was completed to provide a more rigorous evaluation of statistical power. Bonferroni adjustments were made to minimize Type I error and normality of the distributions were assumed. This survey collected demographic information on gender, whether participants were men or women, and as such, a mixed ANOVA was conducted to more stringently compare the pre- and post- UCLA Loneliness Scale (Version 3) scores (within-subjects ANOVA) as well as compare the pre- and post- UCLA Loneliness Scale (Version 3) scores for gender differences (between-subjects ANOVA).

With a Greenhouse-Geisser correction, the analysis replicated the significant difference initially reported between pre- and post- UCLA Loneliness Scale (Version 3) scores [ $F(1, 18)=15.40, p=0.001$ ] but did not demonstrate a significant difference by gender [ $F(1, 18)=0.2, p=0.66$ ] for the pre- UCLA Loneliness Scale (Version 3) scores (women:  $M=50.92, SD=5.74$  & men:  $M=50.25, SD=6.3$ , mean difference = 0.67) and post- UCLA Loneliness Scale (Version 3) scores (women:  $M=47.67, SD=6.29$  & men:  $M=46.13, SD=4.61$ , mean difference = 1.54). Mean difference for women pre- and post- UCLA Loneliness Scale (Version 3) was a decrease of 3.25 and for men was a decrease of 4.12.

### **Observational Analysis**

During the AAI session participants were smiling and appeared to be happy while interacting with the therapy dog, Rosi. Students engaged with Rosi in the following ways: petting the dog, sitting near the dog, hugging the dog, brushing the dog's coat, feeding treats to the dog, photographing the dog, and playing with the dog and its toys. The dog handler responded to questions about the therapy dog (e.g., the dog's breed, age, training,

and general personality). Although the therapy dog was available for students to interact with for an hour, the amount of time students chose to spend with Rosi ranged from approximately five minutes to sixty minutes.

During the AAI session participants often shared their experiences of how their own pets had helped them cope with stressors at home. A reoccurring observation across each of the AAI sessions was students who came alone to the session, frequently interacted with other students and connected around the shared interest of the therapy dog. Students often shared about how much interacting with the therapy dog had positively shaped their day, for example, “Petting Rosi just made my whole day better” (Participant 4), or “My day just got infinitely better, after coming here” (Participant 9).

Another consistent observation was that several students continued to return week after week. Throughout the five weeks, four students attended consistently and continued to share interactions with each other.

Finally, it appeared that students spent more time filling out the surveys before the AAI session compared to after the session. Often comments such as “I have to go to class” (Participants 3, 13, 14, 15), or “Ahh I forgot I had to do this again” (Participants 17,18) were followed by the students filling out the surveys as quickly as possible and rushing out of the room.

### **AAI Feedback Form**

Five students (20%) completed the AAI Feedback form. When asked to describe their experience of making social connections on campus, three students stated that they had an easy experience connecting with others, crediting their success to having pre-

existing friendships entering university, being enrolled within a small faculty, or living within the residence community.

Two students shared how they struggled to make social connections on campus. One student shared that their experience making social connections on campus was “non-existent, extremely difficult,” (Participant 9) even with the availability of different clubs. Another student shared that because of the culture existing within their program, they rarely left the Law school building, and found it challenging to connect with others.

Three students identified that interacting with the therapy dog was what they enjoyed most about the AAI session. Two described how their favourite part of interacting with the dog was the relief of stress and anxiety. When asked what participating in this AAI meant to them, all students described how it had a positive impact on their day. For example, one individual said, “it made me feel comforted because I often miss my dog” (Participant 4).

Three students expressed how it was a positive experience because it provided the opportunity to take time away from the chaos, stress and anxiety that existed within their day-to-day life on campus. One student had a deeply profound experience stating,

“This experience provided me a sense of relief and calmness for the first time since stepping on campus this morning. I look forward to the dog room every Monday - I love it so much” (Participant 9).

Testimonies such as this individual’s experience mirror what was observed first-hand on a weekly basis. Students often shared that visiting with Rosi each week made their whole day, reduced their stress, and changed the notion of “Monday’s being the worst day of the week” (Participant 4).

It was also observed that students who initially expressed uneasiness in the group setting, continued to come week after week, and began connecting with other students who had become regulars at the AAI session. Every student that completed the feedback form identified that they either felt “better” or “so much better” leaving the session than they did when they first arrived at the centre. Finally, three participants indicated a higher level of connection to campus, and two indicated the same level of connection to campus after having interacted with the dog.

## **Discussion**

Student mental health has been identified in the Canadian media as a crisis on university campuses, with a need for novel and effective responses (Lanua, 2012). Consequently, nearly half of Canada’s ninety-eight universities currently offer therapy dog programs during examination periods and, for some institutions, regularly throughout the term (Dell, et al., 2015). In the past four years, the Student Health Centre at the University of New Brunswick has successfully partnered with the Student Union to provide over eight hundred students with AAI during the exam period with hopes of reducing stress levels amongst students. While there has been much anecdotal evidence about the impact of these programs, this pilot study sought to explore how AAI influenced students’ levels of loneliness. It was anticipated that participants would see a reduction of loneliness symptoms after interacting with the therapy dog.

The findings suggested that the AAI has a statistically significant and positive benefit in reducing self-reported feelings of loneliness for UNB students who access the Peer Support Centre. However, this positive trend in the data still leaves clinical significance somewhat ambiguous as the mean scores of the UCLA Loneliness Scale

(Version 3) from both pre- and post-intervention fall between the measure's options of "Rarely" and "Sometimes", placing both sets of scores in a midrange level of loneliness. These findings are consistent with other studies using AAI and measuring participant loneliness conducted in long-term care facilities (Banks & Banks, 2002). While the clinical significance of the results may have been ambiguous within this study, the qualitative feedback showed a positive trend consistent with other university-based studies with significantly larger sample sizes ( $n=403$ ) (Dell, et al., 2015). Consistent with previous research (Dell, et al., 2015; Binfet & Passmore, 2016), the findings from this study showed participants created new friendships in the AAI session that otherwise may not have been made.

Both male and female participants demonstrated a decrease in loneliness from pre- to post-intervention. However, neither group benefited significantly more than the other. The research on animal-assisted interventions in a post-secondary environment has predominately favoured AAI's as being more effective for females (Dell, et al., 2015; Crump & Derting, 2015; Binfet & Passmore, 2016). However, the majority of AAI attendees have been females. It could be hypothesized that males would be less likely to participate in an AAI intervention to reduce loneliness due to gender norms and stereotypes (Tamres, Janicki, & Helgeson, 2002).

## **Limitations**

This pilot study has six key limitations. First, it is highly likely that the vast majority of students who attended the AAI session liked dogs, and this may explain the positive findings. At the same time, the Therapy Dog program is designed specifically for these students.

Secondly, the intervention took place at the Peer Support Centre, which was chosen due to its convenience as it already hosts AAI every Monday. Hosting the session at this location may have biased the sample of attendees to individuals who were already feeling lower levels of social connectedness. While this was not evident in the responses from the participants that we assessed it might be observed in a larger sample size.

Thirdly, the amount of time required to complete the surveys may have impacted the quality of participants' responses. The majority of participants did not anticipate how long it would take to fill out the questionnaire and feedback survey post-intervention. After spending time with the therapy dog many students reluctantly filled out the post-intervention surveys while others completely disregarded them and left.

The fourth limitation was the time constraints of the study. It was anticipated that the data collection would only take three weeks, based on the numbers of individuals who had been attending the AAI sessions throughout the previous academic year. It was assumed that ten sets of data could be collected each week for three weeks for a total of thirty data sets. However, when the study took place attendance at the AAI substantially dropped from normal attendance. As a result the collection of data was extended for an additional two weeks. These time constraints resulted in the fifth limitation, namely a small sample size.

The report's small sample size made it challenging to extrapolate the data accurately and persuasively. A small sample also made it more difficult to confirm normality of the distribution and subsequently makes it more difficult to select appropriate statistical analyses. Given a student population of approximately 11,000 students at UNB, over 400 hundred participants would likely be needed for our results to

achieve the level of clinical significance. The small sample size leaves the analysis vulnerable to Type I errors.

*Type I error.* The initial statistical analysis demonstrated a significant difference but it was thought that this was likely due to a Type I error (wrongly rejecting the Null Hypothesis – saying the AAI session has a benefit when it actually does not) due to the small sample size. As such a second analysis was run after rescaling the measure into Low Loneliness (when people selected the options: ‘Never’ & ‘Rarely’) and High Loneliness (when people selected the options: ‘Sometimes’ & ‘Often’). The *t* test between Low and High showed that there was no significant difference between the groups. The means of pre-scores and post-scores are incredibly similar and all hover around the median of 50 (lowest score = 20, highest score = 80). The confidence intervals are also very tight (50 +/- 3).

Finally, common self-report measurement limitations of the questionnaire, including response bias due to social desirability, the impact of extreme feelings at the time it was completed, and the fact that it was voluntary may have had an impact on the findings.

### **Implications for Counselling and Student Services**

Overall, the results of this pilot project revealed that AAI may be an efficient and effective approach to augment the mental health services offered to the student population at the University of New Brunswick. The AAI pilot program appeared to reduce students’ perceived levels of loneliness, which is identified as an important student outcome in the empirical literature (Stewart, et al., 2014). It is suggested that the availability and accessibility of AAI on campus should be extended to reach more

students experiencing loneliness and social isolation. Suggestions for doing so include hosting weekly dog therapy events within the student residences, having trained therapy dogs and handlers available throughout the campus, in locations such as counselling services, the Law building, and the library (Aiken & Cadmus, 2011).

It is important for UNB to consider linking an AAI to existing mental health services on campus, for example, hosting AAI in an area that receives greater traffic, such as the main floor of the student union building, or the entrances of faculty buildings. Additionally, hosting psycho-education groups on campus using a therapy dog, such as test anxiety groups, could help increase both attendance and participant satisfaction (Daltry & Mehr, 2015).

The potential to partner with other student services could enhance the potential to reach larger groups of students. For example, the University of Saskatchewan campus, partnered with the Therapy Dog program to produce a door hanger that states, “Gone to the dogs to PAWS my stress. Petting a dog can increase levels of the stress-reducing hormone oxytocin and decrease production of the stress hormone cortisol” on the front and, on the reverse side, “Alcohol is a depressant and increases feelings of stress. If you choose to drink, follow Canada’s low-risk drinking guidelines” and lists them. Furthermore involving therapy dogs in events that could be deemed emotionally triggering or stressful, such as the Suicide Awareness Day, or as a part of a mental health crisis response team on campus could be explored. Therapy dogs could be used during times that are supposed to foster social connections amongst students. For example, orientation week is an excellent opportunity for students to build social connections over their mutual interest in dogs.

In summary, this pilot study supported the positive impact of an on-campus AAI program with postsecondary students. In a time where student stress, homesickness, loneliness, and lack of integration and connection to their peers has reached critical levels, the development and implementation of AAI programs represent a possible proactive way to combat this dilemma.

### **Implications for Future Research**

This pilot project aimed to provide information for researchers to pursue similar studies on a greater scale. There are several considerations that should be noted for future studies. This research took place over the course of five weeks. It is recommended that data collection occur over the course of an academic year to enhance the sample size. A large sample of students would help with the transferability of findings and possibly lead to clinical significance.

Throughout the pilot study the research context was maintained to limit extraneous factors. The same handler, therapy dog, and room were used each week to provide consistency. In future studies continuing with this practice would be recommended. In future studies it would also be important to make participants aware of how long it will take them to fill them out the surveys to obtain completed forms and possibly more accurate responses.

## References

- Adamle, K., Riley, T., & Carlson, T. (2009). Evaluating college student interest in pet therapy. *Journal of American College Health, 57*, 545–548.  
doi:10.3200/JACH.57.5.545-548.
- Banks, M., Banks, W. (2002). The effects of animal-assisted therapy on loneliness in an elderly population in long-term care facilities, *The Journals of Gerontology: Series A, 57*(7), 1, M428–432, <https://doi.org/10.1093/gerona/57.7.M428>
- Barker, S., Knisely, J., McCain, N., Schubert, C., & Pandurangi, A. (2010). Exploratory study of stress-buffering response patterns from interaction with a therapy dog. *Anthrozoös, A Multidisciplinary Journal of the Interactions of People & Animals 23*, 79–91. doi:10.2752/175303710X12627079939341.
- Binfet, J., & Passmore, H. (2016). Hounds and homesickness: The effects of an animal-assisted therapeutic intervention for first-year university students. *Anthrozoös A Multidisciplinary Journal of the Interactions of People & Animals, 29*(3), 441-454.
- Boldt, R., & Paul, S. (2011). Building a creative-arts therapy group at a university counseling center. *Journal of College Student Psychotherapy, 25*, 39–52.  
doi:10.1080/87568225.2011.532472 .
- Burns, J., Lee, R., & Brown, L. (2011). The effect of meditation on self-reported measures of stress, anxiety, depression, and perfectionism in a college population. *Journal of College Student Psychotherapy, 25*, 132– 144. doi:  
10.1080/87568225.2011.556947.

- Cairns, S. L., Massfeller, H. F., & Deeth, S. C. (2010). Why do post-secondary students seek counselling? *Canadian Journal of Counselling and Psychotherapy / Revue canadienne de counseling et de psychothérapie*, 44(1), 34-50.
- Creswell, J. (2013). *Research design: Qualitative, quantitative, and mixed method approaches*. Thousand Oaks, California: Sage Publications
- Crump, C., & Derting, T. (2015). Effects of pet therapy on the psychological and physiological stress levels of first-year female undergraduates. *North American Journal of Psychology*. 17, 575–590.
- Daltry, R., & Mehr, K. (2015). Therapy dogs on campus: Recommendations for counseling center outreach. *Journal of College Student Psychotherapy*, 29, 72–78. doi:10.1080/87568225.2015.976100.
- Dell, C., Chalmers, D., Gillett, J., Rohr, B., Nickel, C., Campbell, L., . . . Brydges, M. (2015). PAWSing student stress: A pilot evaluation study of the St. John ambulance therapy dog program on three university campuses in Canada/Museler le stress chez l'étudiant : Étude pilote d'évaluation menée sur trois campus universitaires au Canada dans le cadre du programme de zoothérapie canine d'ambulance saint-jean. *Canadian Journal of Counselling and Psychotherapy (Online)*, 49(4), 332-359.
- Fine, H., & Beck, A. (2010). *Understanding our kinship with animals: Input for health care professionals interested in the animal/human bond. Handbook of animal-assisted therapy: Theoretical foundations and guidelines for practice* (3rd Ed.) (pp.3-16). London: Academic Press
- Grajfoner, D., Harte, E., Potter, L., & McGuigan, N. (2017). The effect of dog-assisted

- intervention on student well-being, mood, and anxiety. *International Journal of Environmental Research and Public Health*, 14(5), [483].  
doi: 10.3390/ijerph14050483.
- Hammerfald, K., Eberle, C., Grau, M., Kinsperger, A., Zimmermann, A., Ehlert, U., & Gaab, J. (2006). Persistent effects of cognitive-behavioral stress management on cortisol responses to acute stress in healthy subjects: A randomized controlled trial. *Psychoneuroendocrinology*, 31, 333–339. doi: 10.1016/j.psyneuen.2005.08.007.
- Hastings, S. L., & Cohn, T. J. (2015). Social Development and Relationship Enhancement. In R. Hetzel, L. Marks, & J. Wade (Eds.), *Positive psychology on the college campus*, Oxford University Press.
- Hesse-Biber, S. (2010). Qualitative approaches to mixed methods practice. *Qualitative Inquiry*, 16, 455- 468.
- Hunt, S., Hart, L., & Gomulkiewicz, R. (1992). Role of small animals in social interactions between strangers. *The Journal of Social Psychology*, 132(2), 245–256.
- Iarovici, D. (2014). *Mental Health Issues and the University Student*. Baltimore: Johns Hopkins University Press.
- Kruisselbrink-Flatt, A. (2013). A suffering generation: Six factors contributing to the mental health crisis in North American higher education. *College Quarterly*, 17(1), 1-17.
- Kurdek, L. (2008). Pet dogs as attachment figures. *Journal of Social and Personal Relationships*, 25, 247–266. doi:10.1177/0265407507087958.

Lanua, K. (September 5, 2012). The mental health crisis on campus. *Maclean's Magazine*.

Retrieved from <http://www.macleans.ca/education/uniandcollege/the-mental-health-crisis-on-campus/>

Lee, R., Keough, K., & Sexton, J. (2002). Social connectedness, social appraisal, and perceived stress in college women and men. *Journal of Counseling and Development, 80*(3), 355-361.

Levinson, B. M. (1997). *Pet-oriented child psychotherapy* (2nd Ed.). Springfield, IL: Charles C. Thomas.

Lynch, S., Gander, M., Kohls, N., Kudielka, B., & Walach, H. (2011). Mindfulness based coping with university life: A non randomized waitlist controlled pilot evaluation. *Stress and Health, 27*, 365–375. doi: 10.1016/j.sbspro.2014.12.321.

Maujean, A., Pepping, C., & Kendall, E. (2015). A systematic review of randomized controlled trials of animal-assisted therapy on psychosocial outcomes. *Anthrozoös: A Multidisciplinary Journal of the Interactions of People & Animals, 28*(1), 23-36.

McNicholas, J., & Collis, G. (2000). Dogs as catalysts for social interactions: Robustness of the effect. *British Journal of Psychology 91*, 61-70.

Mier, S., Boone, M., & Shropshire, S. (2008). Community consultation and interventions: Supporting students who do not access counseling services. *Journal of College Student Psychotherapy, 23*, 16–29. doi:10.1080/87568220802367602.

Nimer, J., & Lundahl, B. (2007). Animal-assisted therapy: A meta-analysis. *Anthrozoös: A Multidisciplinary Journal of the Interactions of People & Animals, 20*(3) 225–

238.

- Regehr, C., Glancy, D., & Pitts, A. (2013). Interventions to reduce stress in university students: A review and meta-analysis. *Journal of Affective Disorders, 148*, 1–11. doi: 10.1016/j.jad.2012.11.026.
- Renck-Jalongo, M., & McDevitt, T. (2015) Therapy dogs in academic libraries: A way to foster student engagement and mitigate self-reported stress during finals, *Public Services Quarterly, 11*(4), 254-269, DOI: 10.1080/15228959.2015.1084904.
- Reynolds, J., & Rabschutz, L. (2011). Studying for exams just got more relaxing—Animal-assisted activities at the University of Connecticut Library, *College & Undergraduate Libraries, 18*(4), 359-367.
- Richeson, N. (2003). Effects of animal-assisted therapy on agitated behaviors and social interactions of older adults with dementia. *American Journal of Alzheimer's Disease and Other Dementias, 18*(6), 353–358.
- Russell, D. (1996). UCLA Loneliness Scale (Version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment, 66*, 20-40.
- Russell, D., Peplau, L., & Ferguson, M. (1978). Developing a measure of loneliness. *Journal of Personality Assessment, 42*, 290-294.
- Russell, D., Peplau L.A., & Cutrona, C.E. (1980). The revised UCLA Loneliness Scale – Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology, 39*, 472-480.
- Stewart, L., Dispenza, F., Parker, L., Chang, C., & Cunnien, T. (2014). A pilot study assessing the effectiveness of an animal-assisted outreach program. *Journal of*

*Creativity in Mental Health*, 9(3) 332-345.

Tamres, L., Janicki, D., & Helgeson, V. (2002). Sex differences in coping behavior: A meta-analytic review and an examination of relative coping. *Personality and Social Psychology Review*, 6, 2–30.

Tedeschi, P., Fitchett, J., & Molidor, C. (2005). The incorporation of animal-assisted interventions in social work education. *Journal of Family Social Work*, 9(4), 59-77.

Wood, L., Giles-Corti, B., & Bulsara, M. (2005). The pet connection: Pets as a conduit for social capital? *Social Science & Medicine* 61(6), 1159-73.

## **Appendix A: Explanatory Letter**

The purpose of this letter is to invite you to participate in a research project developed by Hilary Swan, in partial fulfillment of her Master's Degree in Counselling Psychology at the University of New Brunswick.

**Statement of the research purpose:** The purpose of this research is to explore the effects therapy dogs have on postsecondary students' experience of loneliness on campus.

**Identity of the researcher:** The Principal Investigator (PI) responsible for this research project is Hilary Swan, Master's student at the University of New Brunswick.

**Funding:** The PI has received funding from the New Brunswick Innovation Foundation to aid in the completion of this research. The PI has no conflicts of interest to report.

**Expected Duration of the Research:** This research is expected to commence in January 2018 and terminate in April 2018.

**Nature of Participation and Description of Research Procedures:** Participants in this study will be invited to participate in completing the UCLA Loneliness Scale (Version 3) pre- and post an Animal Assisted Intervention (AAI), involving interacting with the therapy dog at one's leisure, as well as a general information feedback form. The PI will offer the participants the assessment scale and feedback form in room 103 at the student's union building on the University of New Brunswick Fredericton's campus. Participants will be asked to complete a loneliness scale before and after interacting with the therapy dog, as well as a semi-structured questionnaire before leaving the room. Participants will be able to offer as much or as little response as they feel comfortable and appropriate.

**Potential Risks and Potential Benefits:** The PI does not foresee any risks to participants arising from their participation in this study. Participants will be able to participate in the AAI even if they do not want to participate in the study. A benefit of the study might be an increased self-awareness of how spending time with the therapy dogs offers the opportunity to develop social connections with other attendees.

**Participant Rights:** Participants are under no obligation to participate in this study. Attendees will have full access to the therapy dogs if they choose to not participate in the study. All participants are free to withdraw their consent at any time during the study without prejudice to pre-existing entitlements. The protocol for the AAI program is available for review in St. John Ambulance's MOU with UNB (Appendix E). The PI will make available in a timely manner throughout the research project all information that is relevant to their decision to continue or withdrawal from the study.

**Possibility of Commercialization of Research Findings:** This research is not part of a commercial project.

**Dissemination of Research Results:** The PI may publish the research findings in the academic literature. If this does happen, all participants will remain non-identifiable. Participants can request a summary copy of the study's findings by contacting the PI by email at [hswan@unb.ca](mailto:hswan@unb.ca).

**Qualified Representative:** Both the PI and her supervisor Dr. Helen Massfeller will be available to explain scientific and/or scholarly aspects of the research to participants. They can be reached at: PI: [hswan@unb.ca](mailto:hswan@unb.ca); Dr. Massfeller: [helen.massfeller@unb.ca](mailto:helen.massfeller@unb.ca)

**Contact outside the research team:** Dr. Jeff Landine, Associate Professor, Registered Psychologist and Research Ethics Board Member, Faculty of Education at the University of New Brunswick, Fredericton Campus, is available for contact regarding possible research ethical issues. Dr. Landine can be reached at [jlandine@unb.ca](mailto:jlandine@unb.ca)

**Confidentiality:** In accordance with Article 5.1 of the Tri-Council Policy: The PI will maintain confidentiality of all personal information about research participants. Participants will be asked only include their faculty, year of study and gender. No other personal information will be included in the data analysis. All participants will be assigned a unique identifier number (UIN#). All data will be stored in a locked cabinet, in the locked office of the PI. Only the PI and her supervisor Dr. Helen Massfeller will have access to the data. In the event that the data is published in the academic literature, only summative data will be included in the publication. This pilot study is being completed in fulfilment of the requirements of the PI's Master's Research Project. Research outcomes will be discussed with the PI's supervisor and at the defense of the PI's Research Project prior to graduation.

**Questions/Concerns:** Any questions or concerns can be forwarded to the PI at [hswan@unb.ca](mailto:hswan@unb.ca).

This project has been reviewed by the Research Ethics Board of the University of New Brunswick and is on file as REB 2018-009.

## Appendix B: Informed Consent

**Principal Investigator:** The Principal Investigator (PI) for this study is Hilary Swan, Master's student in the Faculty of Education at the University of New Brunswick. She can be contacted at: ph. 1(506) 478-1585 or email: hswan@unb.ca

**Supervisor of Principal Investigator:** The Supervisor of the PI is Dr. Helen Massfeller. Dr. Massfeller is a Registered Psychologist and an Associate Professor in the Faculty of Education at the University of New Brunswick, Fredericton Campus. She can be reached at: ph. 1 (506) 453-5033.

**External Contact:** Should you have any concerns about this research please contact my supervisor Dr. Helen Massfeller. If your concerns are not adequately addressed by the Dr. Massfeller you can contact Dr. Jeff Landine, Associate Professor, Registered Psychologist and Research Ethics Board Member at the University of New Brunswick, Fredericton Campus: ph. 1 (506) 453-4859.

**Invitation to participate:** You are invited to participate in the research study conducted by Hilary, in partial fulfillment of her Master's Degree, in the department of Education at the University of New Brunswick

**Study Name:** "A Pilot Study: Assessing the Effectiveness of an Animal-Assisted Intervention in Reducing Loneliness of Post-secondary Students"

**Purpose of the research:** The purpose of this research is to examine whether AAI with therapy dogs reduce loneliness and promote social connection among university students.

**What you will be asked to do in the research:** Participants in this study will be invited to complete the UCLA Loneliness Scale (Version 3) when they arrive in room 103 of the student union building. The student volunteers will offer the participants the opportunity to engage with therapy dogs, then request they complete the UCLA Loneliness Scale (Version 3) and a feedback form upon completion.

**Period of Participation:** Participants are invited to participate in the study anytime from January 2018 to April 2018.

**Risks:** There is no risk to the participants in this study.

**Possible benefits:** You may experience more social connection to peers and to campus.

**Voluntary participation:** Your participation in the research is completely voluntary.

**Withdrawal from the study:** You may stop participating in the study at any time, for any reason. Your decision to stop participation, or to refuse to answer particular questions, will not affect your relationship with the researchers, your participation in the

dog therapy program, or your academic career at UNB. Your data can be withdrawn at any time.

**Confidentiality:** The PI will maintain confidentiality of all personal information about research participants. Participants will be asked only include their faculty, year of study and gender. No other personal information will be included in the data analysis. All participants will be assigned a unique identifier number (UIN#). All data will be stored in a locked cabinet, in the locked office of the PI. Only the PI and her supervisor Dr. Helen Massfeller will have access to the data. In the event that the data is published in the academic literature, only summative data will be included in the publication. This pilot study is being completed in fulfilment of the requirements of the PI's Master's Research Project. Research outcomes will be discussed with the PI's supervisor and at the defense of the PI's Research Project prior to graduation.

**Questionnaire Responses:** Participants may offer as much or as little information in response to the questions on the questionnaires. Participants may leave questions blank if they so choose.

**How subjects may receive information on the outcome of research:** Participants may receive summative information on the outcomes of the research study by contacting the PI by email at hswan@unb.ca.

**Questions about the research:** Any questions about the research can be forwarded to the PI at hswan@unb.ca.

**Legal Rights and signatures:**

I \_\_\_\_\_ consent to participate in the study, "A Pilot Study: Assessing the Effectiveness of an Animal-Assisted Intervention in Reducing Loneliness of Post-secondary Students" conducted by Hilary Swan, University of New Brunswick Master's student. I have understood the nature of this project and wish to participate. I am not waiving any of my legal rights by signing this form. My signature below indicates my consent.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Participant name (please print): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Principal Investigator: Hilary Swan

This project has been reviewed by the Research Ethics Board of the University of New Brunswick and is on file as REB 2018-009.

## Appendix C: UCLA Loneliness Scale (Version 3)

**Scale:**

INSTRUCTIONS: Indicate how often each of the statements below is descriptive of you.

Statement	Never	Rarely	Sometimes	Often
*1. How often do you feel that you are "in tune" with the people around you?	1	2	3	4
2. How often do you feel that you lack companionship?	1	2	3	4
3. How often do you feel that there is no one you can turn to?	1	2	3	4
4. How often do you feel alone?	1	2	3	4
*5. How often do you feel part of a group of friends?	1	2	3	4
*6. How often do you feel that you have a lot in common with the people around you?	1	2	3	4
7. How often do you feel that you are no longer close to anyone?	1	2	3	4
8. How often do you feel that your interests and ideas are not shared by those around you?	1	2	3	4
*9. How often do you feel outgoing and friendly?	1	2	3	4
*10. How often do you feel close to people?	1	2	3	4
11. How often do you feel left out?	1	2	3	4
12. How often do you feel that your relationships with others are not meaningful?	1	2	3	4
13. How often do you feel that no one really knows you well?	1	2	3	4
14. How often do you feel isolated from others?	1	2	3	4
*15. How often do you feel you can find companionship when you want it?	1	2	3	4
*16. How often do you feel that there are people who really understand you?	1	2	3	4
17. How often do you feel shy?	1	2	3	4
18. How often do you feel that people are around you but not with you?	1	2	3	4
*19. How often do you feel that there are people you can talk to?	1	2	3	4
*20. How often do you feel that there are people you can turn to?	1	2	3	4

Used with permission of Dr. Daniel Russell.



## Appendix E: Memorandum of Understanding



St. John Ambulance Saint-Jean

### Memorandum of Understanding – St. John Ambulance Therapy Dog Program

This memorandum of understanding is made in duplicate the 20<sup>th</sup> day of October, 2015.

**BETWEEN:**

**St. John Ambulance**

**-and-**

**University Of New Brunswick**

**3 Bailey Drive, Fredericton, NB E3B 5A3 (506) 453-4666**

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St. John Ambulance provides a valuable community service by means of the Therapy Dog Program in partnership with care centers, campuses and at public facilities for the benefit of their residents, patients or students. A quality service is maintained through collaboration and cooperation between St. John Ambulance and the Facility. To this end, each of the partners accepts certain responsibilities.

**St. John Ambulance will undertake to:**

- screen all volunteers in a thorough process including 3 references and a police record check in compliance with the St. John Ambulance Insurance carrier;
- screen all dogs for temperament, cleanliness and suitability prior to any visitation on an ongoing basis;
- have all dogs screened for health by a qualified practicing veterinarian;
- train all handlers in the code of conduct for St. John Ambulance volunteers in general, and more specifically, the conduct expected of Therapy Dog Handlers;
- provide in-service training to Therapy Dog Handlers;
- provide overall management of the Therapy Dog Program where the Therapy Dog Handler's first responsibility is Safety through the control, care, protection and responsible presentation of their dogs;
- have all St. John Ambulance staff sign code of conduct and/or confidentiality agreements of the facility, enabling them to accompany Therapy Dog teams in the facility for supervised visits or meetings. (Please note all staff provide a criminal record check and sign annual attestation forms as a condition of employment.)


- provide an easily recognizable uniform for both members of the Therapy Dog Handler Team (human and canine) to be worn on all St. John Ambulance Program business;
- St. John Ambulance will not undertake any specific media coverage at a facility without permission, they may however, name the centre as a participant in general promotion.

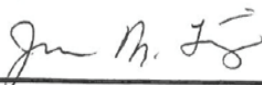
**The Facility will undertake to:**

- recognize the St. John Ambulance Screening process, Uniform code, Record keeping;
- provide a general volunteer orientation to St. John Ambulance Therapy Dog Handlers for normal procedures and emergency protocols respected by all volunteers with the facility;
- provide appropriate confidential information regarding condition(s) which St. John Ambulance Therapy Dog Handlers need to know in order to conduct safe visitations: in particular any person exhibiting aggressive behaviors;
- The facility will coordinate with St. John Ambulance to obtain appropriate release and permission for photo and video media activities including social media.

The assigned St. John Ambulance Therapy Dog Coordinator will work directly with the assigned facility contact to develop a visitation protocol for the Facility. This may entail such things as the process of reporting upon arrival in the facility, deciding most appropriate visitation times & deciding on duration of visits. It will also include a "cancellation procedure" to follow in the event that a visitation cannot be conducted on schedule due to concerns from either organization.

The primary responsibility of St. John Ambulance Therapy Dog Handlers is the safe presentation and handling of their Therapy Dog. Therapy Dogs shall be on lead and in control at all times.

St. John Ambulance Representative (Signature)	St. John Ambulance Representative (Print name)
	Laura Brewer

Facility Representative (Signature)	Facility Representative (Print name)
	Jane Fritz

Date: Nov 27, 2015

## **Curriculum Vitae**

Candidate's full name: Hilary Swan

Universities attended: University of New Brunswick, Bachelor of Philosophy, 2015

Publications: None

Conference Presentations: None