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# Process to Incorporate a Therapy Service Dog in an Occupational Therapy Educational Program

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PROCESS TO INCORPORATE A THERAPY/SERVICE DOG IN AN  
OCCUPATIONAL THERAPY EDUCATIONAL PROGRAM

by

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A Scholarly Project

Submitted to the Occupational Therapy Department

of the

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In partial fulfillment of the requirements

for the degree of

Master of Occupational Therapy

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This Scholarly Project Paper, submitted by Hanna Eickenbrock and Marlee Wheelhouse in partial fulfillment of the requirement for the Degree of Master of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.

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Signature of Faculty Advisor

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Date

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Title                      Process to Incorporate a Therapy/Service Dog in an Occupational  
Therapy Educational Program

Department              Occupational Therapy

Degree                     Master of Occupational Therapy

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Hanna Eickenbrock, MOTS  
12/01/2014

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Marlee Wheelhouse, MOTS  
12/01/2014

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## ABSTRACT

The purpose of the scholarly project is to incorporate a therapy/service dog within the occupational therapy department at the University of North Dakota (UND). The therapy/service dog will be utilized as a support system for student's and faculty's health and well-being and as an educational tool for enhancing student learning. The authors completed the process of implementation by progressing through the hierarchical process of UND gatekeepers. Through the development of a legality and safety protocol, loan agreement, and purpose proposal, the authors obtained official approval to implement a therapy/service dog in the UND Occupational Therapy program.

## **CHAPTER I**

### **INTRODUCTION**

The University of North Dakota (UND) currently offers a variety of graduate programs within the healthcare professions. The transition from undergraduate to graduate level coursework comes with increased course load, projects, and time put into schooling. This increase in responsibilities plays a factor on how one balances his/her life roles and obligations. The literature suggests difficulty balancing roles while completing graduate school results in higher rates of stress, anxiety, and depression (Haldorsen, Bak, Dissing, & Petersson, 2014; Thompson, McBride, & Halaas, 2013) . Graduate school can create challenges for one's health and well-being; not only of students but also others involved. Graduate programs are expected to provide a variety of different ways to learn and expand educational knowledge. Professors continually have to integrate best and most up to date practice standards into the curriculum to continue to grow in the profession. It is vital to address the aspects of personal well-being while incorporating the best educational tools for application to future practice.

The purpose for this scholarly project is to incorporate a dog into the graduate occupational therapy program on the UND campus. The project aims to address the psychosocial impacts graduate programs have on students, staff, and faculty while also utilizing the dog as an educational tool. This project centers on the opportunity to implement a therapy/service dog within the UND occupational therapy department. The focus of the project is developing a legal and safety protocol that adheres to UND policy,

completing insurance coverage and ownership agreements, and addressing the gatekeepers during the process. The overall goal of the project is to obtain approval from the necessary parties in order to implement a therapy/service animal within the occupational therapy department. The intent of utilization of the dog is to benefit students, staff, and faculty well-being while providing unique learning opportunities.

In order to complete the process of implementing a dog on campus, there are many factors to consider. Thorough research into the use and effects of therapy/service animals must be conducted as well as determining how other similar programs have gone about establishing successful dog programs. The literature review in chapter two further provides details as to the impacts of therapy/service dogs on one's well-being and the overall satisfaction of dog programs. Upon completing thorough research and establishing a foundational knowledge base, the next steps are to determine the appropriate sequence of gatekeepers to initiate and continue the process. The methodology in chapter three further details the order of gatekeepers and their impact on the process. While determining the gatekeepers, the authors also considered the details incorporated with implementing a dog such as safety, legality, and insurance. The scholarly project takes into consideration the factors involved in developing a protocol, loan agreement, and purpose proposal. Further details are summarized in chapter four; the complete protocol, loan agreement, and purpose proposal are located in the appendices.

The model used to guide this scholarly project is the Ecology of Human Performance (EHP). This model focuses on adjusting/modifying an environment or task to increase the range of occupational performance opportunities (Turpin & Iwama, 2011).



Within a graduate program, students often experience a disruption in their familiar lifestyle. The increasing demands of academic performance and novice environments of a graduate program pose challenges to adapt and successfully cope with change. By implementing a therapy/service dog within the UND OT program, the authors are considering the *adapt/modify* and *create* intervention strategies of EHP (Turpin & Iwama, 2011).

The presence of the therapy/service dog within the academic environment would aim to address the student's feelings of stress and pressing demand of the academic workload. The dog would serve as an outlet for the students to interact with as a non-judgmental and familiar support tool to decrease stress induced feelings. This would ultimately increase their ability to perform a wider range of tasks that may have presented as unobtainable when experiencing stress or unbalanced mental/emotional well-being. When considering the EHP model, implementation of the dog would serve as a *create* intervention. It would be used as an educational tool to teach students how to utilize a therapy/service dog as a modality during future occupational practice. The dual purpose (therapy and services uses) of the dog would create additional opportunities for the dog to be utilized for various purposes across campus and throughout the Grand Forks community.

## **CHAPTER II**

### **LITERATURE REVIEW**

Graduate students often experience greater degrees of workload and stress that can contribute to decreased physical and mental well-being. According to the National Alliance on Mental Illness (2014), more than 40% of college students have felt overwhelmed in the last year. Providing an educational environment that delivers the assistance of additional supports and services has proven to be rewarding to students on campuses around the United States. Animals can be an essential part of one's social network. Approximately 36% of American households have dogs, which is the equivalent to nearly 101,000 households in North Dakota. (American Veterinary Medical Association, 2014). There are many benefits associated with the use of dogs for companionship and therapy purposes. Some of the common benefits include providing social support, improving mood, reducing stress, and providing a sense of comfort of a nonjudgmental companion (Bibbo, 2013; Hamaideh & Hamdan-Mansour, 2014; Rossetti, DeFabiis, & Belpedio, 2008).

The purpose of this literature review is to determine the training and safety requirements in order to incorporate a dog into the Occupational Therapy Department at the University of North Dakota (UND). First the authors will analyze the discrepancies in definitions used for dogs within healthcare, long term, and educational facilities in order to establish a universal term to be utilized when incorporating a dog on campus. Next the benefits of utilizing a dog to enhance the learning environment and overall well

being of graduate students and faculty will be examined. Finally the authors will explore current university programs utilizing therapy/service dogs, and determine what aspects of these programs will be beneficial in developing a protocol specific to UND.

### **Types of Dogs**

Determining the purpose of a dog and the needs of those it serves will help establish which type of certified dog is appropriate. According to Pet Partners (2014), an established organization for training and certifying dogs and handlers across the United States, there are different classifications for defining the use of a dog. A *service dog* is specifically trained to assist a person with a disability and is federally protected under law to accompany the individual anywhere regardless society's rules or regulations. *Therapy dogs, residential dogs, emotional support dogs, and companion dogs* can be used interchangeably due to the vague defining features. These are not legally protected under law and cannot be utilized in areas that are not pet friendly. The main differences in the terms are: *therapy dogs* are accompanied by their handler to work with others; *residential dogs* live within the facility where the services are provided; *emotional support dogs* are loosely defined to help with emotional health and well being; and *companion dogs* are utilized as a social support system. The ways in which the dogs are used are also categorized into two terms. *Animal assisted therapy* and *animal assisted activity* are often used interchangeably but have more specific terms of use. Pet Partners (2014) defines *animal assisted therapy* as being goal directed to a specific person or population using the dog as an integral part of the treatment process. *Animal assisted activity* is informal and tends to not be tailored to a specific person or condition (Pet Partners, 2014). However, to encompass the mass literature on dogs, the terms *therapy/service dog*

and *animal assisted therapy* are used throughout this literature review.

### **Staff/Therapist's Views**

The literature suggests that incorporating a dog within a facility has a positive impact on the staff when considering the environmental surroundings, therapist-patient rapport, and personal gains (Bibbo, 2013; Rossetti et al., 2008; Stewart & Strickland, 2013). Therapist use of the dog during sessions impacts the benefits of having a dog in therapy. A study by Bibbo (2013) found that the handler or trainer plays a big role in staff acceptance of animals in therapy. The author further explained that the handler contributed to the social environment by simultaneously interacting with the staff and dog. Rossetti, DeFabiis, and Belpedio (2008) found that staff felt better and had improved mood in the presence of a dog within the facility. However, Bibbo (2013) found that those who have had previous experiences and interactions with dogs have a greater acceptance of dogs within a facility.

Dogs also can help to reduce the stress of staff. Rossetti et al. (2008) reported that staff felt less stressed during work after interacting with a dog. According to Stewart and Strickland (2013), those with average stress jobs who have positive feelings toward animals reported that animals in the work place help assist in stress relief. Staff expressed that having an animal around the facility was an added bonus to working there (Rossetti et al., 2008). The authors also reported that having the dog at work increased staff morale and created a more positive environment. However, Stewart and Strickland (2013) explained that the presence of an animal in the workplace did not reduce stress for all staff members, as not all members reported being animal lovers. Similarly, Bibbo

(2013) concluded that having an animal can increase the stress of one's job responsibilities such as training and cleaning up after the animal.

Dogs can help create better moods, as well as, make an impact on the therapist-patient relationship. According to Ernst (2013), having an animal in therapy can create a bridge that makes patients feel safe and protected while being able to connect with the health professional. Research has shown that incorporating dogs in therapy has helped facilitate the therapist to appreciate the entire realm of the patient. Rossetti et al. (2008) reported that through interactions with dogs, the staff was able to view the patient more holistically as they gained insight into the patient's personalities while the dog also facilitated social interactions between staff and patients. As occupational therapists, it is necessary to view the patient holistically in order to create intervention plans that encompass the patient's meaningful occupations. Velde, Cipriani, and Fisher (2005) indicated that pet ownership, care, and interactions could be considered meaningful occupations. Furthermore, the authors stated that the use of pets could help facilitate occupation-based activities, as Rossetti et al. (2008) explained that pets foster staff's creativity for treatment interventions.

### **Patient Views**

While staff members are continually working with the animals, one must also consider the patients that are being served. Patients can experience both positive and negative opinions when working with animals during treatment. The main benefits from interacting with a dog during therapy include increased mood and social interactions, and decreased levels of depression, stress, and fatigue (Beck et al., 2012; LeRoux & Kemp, 2009; Majic, Gutzmann, Heinz, Lang, & Rapp, 2013; Marcus et al., 2013). Dogs were

often considered a big part of conversation among patients who also reported looking forward to seeing the dogs (Beck et al., 2012). A study by LeRoux and Kemp (2009) found that visits with the dogs brought back pleasant memories of previous interactions with dogs or pets. There are also some negative impacts of working with animals. As reported by Marcus et al. (2013), some participants verbalized that they disliked or are intimidated by dogs and would prefer a different type of animal such as a cat or rabbit. Bibbo (2013) reported that animals can disrupt the care of patients and provide an added stress to the professional-patient relationship. Patient diversity may also impact the use of dogs as a single type of animal intervention may not be beneficial to each patient (Majic, et al. 2013). The different patient populations will play a large role in determining the purpose of a therapy/service dog program.

The overall environment can also be enhanced with patient-dog interactions. Fick (1993) discovered that the presence of a dog within the facility provided a comfortable environment that was conducive to the goals of therapy. Having a comfortable environment can help enhance one's effort towards reaching therapy goals and create a more interactive setting for patient-to-patient or patient-to-therapist interaction. Dogs in therapy are used to stimulate cognitive function and improve communication skills, which in turn can increase the overall social climate of the environment (DiSalvo et al., 2005; Fick, 1993). Since increasing social interaction is often a goal of therapy, a dog can be a worthy catalyst to facilitate social interaction among patients. Rossetti et al. (2008) reported that dogs enhanced the importance of nonverbal communication through gestures and facial expressions while facilitating interactions between patients and staff. Similar findings were reported in a study by Fick (1993), in which there was twice the

number of verbal and nonverbal interactions under the condition of having a dog present versus not having a dog in therapy. The literature suggests that incorporating a dog in therapy may help facilitate achievement of therapy goals by providing a comfortable environment in which the patients are motivated to return to therapy.

While dogs are an important aspect to patients wanting to come to therapy, the dog also plays a role in a patient's health and well-being. The positive effect on emotional health was demonstrated in a study by Johnson, Meadows, Haubner, and Sevedge (2008), in which visitations with dogs had been reported to improve patient's mood, self perceived health, and fatigue levels. A study by Beck et al. (2012), which focused on the treatment of wounded warriors, discovered that patients felt more at ease after working with a dog. The result of the study indicated that as mood improved, fatigue diminished, and overall occupational performance and psychological well-being was enhanced. Similar results were found in a study by Marcus et al. (2013), in which patients had higher levels of calmness, pleasantness, and cheerfulness after interacting with a dog. The study results indicate significant improvements in pain, fatigue, stress, and aggravation for those patients who were able to interact with the dogs versus those who did not interact with a dog.

Other essential features of emotional health, such as depression and anxiety of patients have been further examined in the literature. LeRoux and Kemp (2009) conducted a study that reinforces that interaction with dogs can make a difference in depression levels of patients. The authors found that patients had significantly lower depression levels on the Beck Depression Inventory after participating in animal assisted therapy. These results indicate that depression levels can decrease after interacting with a

dog. However, Majic, Gutzmann, Heinz, Lang, and Rapp (2013) conducted a study which resulted in the experimental group's depression levels remaining constant after interaction with dogs when compared to the controlled group, which depression increased over time. The authors concluded that although depression levels stayed constant when interacting with dogs, the intervention might have delayed development of more severe symptoms. Although there are many benefits to incorporating dogs in therapy, Johnson et al. (2008) concluded that positive outcomes might not be measurable for all patients involved. This must be taken into account when considering the pros and cons of any new program that incorporates dogs into a facility.

### **College Students Views**

When considering the effectiveness of using a therapy/service dog, the facilities of common interest include hospitals, nursing homes, and long term care facilities. An often overlooked population that has been researched to show similar symptoms of stress, anxiety, and depression is that of college students. College students may also receive benefits from interactions with dogs. Having dogs on campus can enhance a sense of comfort that comes from those who have pets at home. Pets are known to mean a great deal to a person and those who have left for college report missing their pet while they are away (Reynolds & Rabschutz, 2011). In some cases, pets may be part of the family and missing that constant companionship can affect one's college experience. According to Adamle, Riley, and Carlson (2009), 92.5% of college students reported that their pets at home are an integral part of their life with 90.3% receiving support and comfort from interactions with their pet.



Having a support system is an important part of transitioning to the college lifestyle. The responsibilities of being a student can affect one's health and well-being if not properly balanced. A study by Ruiz-Aranda, Extremera, and Pineda-Galan (2014) concluded that students who have greater emotional intelligence are able to maintain a better outlook on life and better emotional health. The use of maladaptive strategies, such as self blaming, denial, and giving up, to cope with the lifestyle change results in higher levels of depression and anxiety (Mahmoud, Staten, Hall, & Lennie, 2012). With the increasing media attention given to mental health in the past few years, it is important to consider the impact that college life can have on one's mental health. According to a study by Mahmoud, Staten, Hall and Lennie (2012) at least one in four college students report experiencing symptoms of depression, anxiety, and stress. In addition, the authors reported that female students had higher levels of anxiety and stress than their male counterparts. Hamaideh and Hamdan-Mansour (2014) reported similar results in which males had higher levels of self-esteem and females had higher levels of motivation, depression, anxiety, and stress. These results indicate the importance of one's health and well-being, especially that of female college students. Since stressful situations are inevitable during the course of a college workload, being able to evaluate one's well-being and seek support when it is needed is an important part of maintaining greater life satisfaction and happiness (Ruiz-Aranda, Extremera, & Pineda-Galan, 2014).

The transition from undergraduate to graduate status carries a bigger impact on one's health and well-being and ability to balance the increased workload. Students in higher education often are challenged with the responsibilities of work, family, finances, and attaining an education (Klainberg, Ewing, & Ryan, 2011; Maville, Kranz, & Tucker,

2004). The increased workload that is entailed in a graduate program impacts emotional health. Approximately 50% of graduate students reported above average stress levels with 41.7% reporting highest levels of stress ever in a study by Maville, Kranz, and Tucker (2004). Similar results were reported in a study by Pfeifer, Kranz, and Scoggin (2008), in which 66.4% of occupational therapy students reported their current levels at above average or highest ever. Stress level was a common theme among graduate students, in which most students reported being overwhelmed with the rigors of the program, and many expressed concerns about the strain the program had on their roles as a husband, wife, parent, friend, or breadwinner (Maville et al., 2004; Pfeifer, Kranz, & Scoggin, 2008). These studies indicate that graduate students experience more than average stress, which can also impact their roles and other responsibilities outside of the educational program.

While graduate students are reported to experience more stress, they may also increase their chances of experiencing depressive symptoms. In a study by Haldorsen, Bak, Dissing, and Petersson (2014), depressive symptoms were found to be significantly related to stress levels during graduate school. The lack of social supports has been linked to increased levels of depression when experiencing stress (Haldorsen, Bak, Dissing, & Petersson, 2014; Thompson, McBride, & Halaas, 2013). Furthermore, Thompson, McBride, and Halaas (2013) found that increased severity of depression was likely to lead to academic burnout. Admitting that one has depression often reinforces the stigma that one's way of coping is inadequate. Thompson et al. (2014) found that participants who require the need of a counselor are admitting that one cannot deal with the pressures of the graduate program which is portrayed as a personal weakness and may

result in peers not respecting one's opinion or contributions. When dealing with symptoms of depression it is important to determine appropriate sources of support or positive coping strategies. Students who use adaptive coping strategies experience fewer symptoms of depression when compared to their peers who use maladaptive strategies (Mahmoud et al., 2012). One must establish adaptive coping strategies that are effective to one's personal lifestyle. Campuses may need revisions to current programs and services that are focused on contributing to the students in a holistic way to enhance their health and well being (Klainberg et al., 2011). Some promising benefits of implementing a dog program on campus include providing additional social supports, reducing stress, and providing a nonjudgmental environment (Bibbo, 2013; Rossetti et al., 2008)

### **Current Programs**

Implementing a program with dogs on campus can be achieved, but it must ultimately meet the needs of the students. The desire for pets to visit the resident halls was a recurring theme in a study by Adamle, Riley, and Carlson (2009). The authors reported the significance of interactions between dogs and students as a catalyst for establishing social relationships with other college students. Reynolds and Rabschutz (2011) found that implementing a dog program during finals week was well received and a natural fit for college students. Furthermore, approximately 96% of students expressed positive interest in the possibility of implementing a dog program on campus year round (Adamle, Riley, & Carlson, 2009).

Recently, programs have been established around the United States in which dogs are becoming an integral part of reducing stress during finals weeks and year round.

Macalester College in Minnesota has established “Dog Days”, where dogs are brought onto campus during finals week as an added social support for those who need to relieve stress or get away from studying for a while (Daniels, 2010). Similarly, Reynolds and Rabschutz (2011) described the program “Paws to Relax” at the University of Connecticut, where therapy dogs are brought onto campus during final exams for added social interactions. Young (2012) found that when students felt stressed about their current course work, they would often seek a visit with a therapy dog. Some colleges have taken even more drastic measures of implementing more than one program on campus, such as the University of Minnesota. The Law School at the University of Minnesota has a separate program utilizing dogs during finals week as a de-stressor (Daniels, 2010). Another highly regarded program is the “PAWS Program” at the University of Minnesota, whose purpose is to add an additional support system to help reduce stress of students and staff on campus where dogs and a chicken are utilized weekly throughout the year (University of Minnesota, 2014).

As the stress levels of college students has become a forefront to achieving academic success, some colleges have begun to implement year round programs specifically for graduate students. In the spring of 2011, Yale University came up with the first library therapy dog program in which law students could spend time with Monty (the therapy dog) with the intent to increase overall health and general happiness (Aiken, 2012). Monty is utilized year round in the library and has kick started the notion of implementing dogs on campus for graduate students who need additional stress relieving supports (Aiken, 2012). Cooper is another therapy dog utilized twice a week in the

Medical Library at Harvard University to decrease stress in graduate students (Junge & MacDonald, 2011).

Due to their predictability, ease of training and nonjudgmental nature, dogs are a considered a good support for college students (Reynolds & Rabschutz, 2011). The implementation of a dog that is trained as both a service and therapy/service dog would serve as beneficial for an educational program. This would promote the health and well-being of students, staff, and faculty as well as serving a dual purpose as an educational tool for learning the functional use of the dog. Reports of feeling more motivated, experiencing less stress, and being more cheerful and joyful after interacting with dogs was reported in a study by Rossetti et al. (2008). A dog's friendly nature helps create a more relaxed educational environment for students to promote learning. The Assistant Dean for Student Affairs at Emory University's Law School reported that the therapy dogs on campus are a beneficial tool for reducing stress and efforts to promote healthy campus life (Williams, 2012). Improving the overall educational experience of the students should be the main priority when considering the impact a dog program will have on campus.

### **Precautions**

While there are many benefits to implementing a dog program on campus, there also are risks and precautions that a department must take into consideration. The first consideration is the overall nature of the dog itself. The temperament of the dog should be considered a key component to the evaluation process (Ernst, 2013). Education on infection control is vital to any successful dog therapy program (Ernst, 2013).

Importantly, handlers and dogs need to be trained, screened, evaluated, and certified by

an established agency before consideration proceeding to implementing a dog program (Reynolds & Rabschutz, 2011).

In a study by Lefebvre et al. (2005) screening beyond a physical examination and health monitoring should be considered. An important part of keeping up with the health of the dog is having a handler who is trained to recognize the signs of stress in their dog, knows infection control practices, adheres to the code of ethics and professional conduct, and is aware of the various bacterium that dogs can carry (Lefebvre et al., 2005; Reynolds & Rabschutz, 2011). Shedding is a common way to spread bacteria if the dog is not properly bathed and groomed prior to coming into contact with individuals (Lefebvre, et al., 2005; Rossetti et al., 2008; Silveira, Santos, & Linhares, 2011). In addition, students may have allergies to dogs so it is important to consider what type of environment will be most beneficial to the dog and individuals who wish to have access to the dog services provided. In order to ensure that the environment is kept clean, the facility or handler should provide a cleanup kit such as paper towels, odor remover, sanitizer, plastic bags, etc. to decrease the risk of spreading bacteria (Lefebvre et al., 2005; Reynolds & Rabschutz, 2011; Silveira et al., 2011). It is also necessary that the handler or facility keep the dog's certifications, vaccinations, and medications up to date in order to keep the dog in good health for interactions with others (Rossetti et al., 2008). Following the guidelines that the facility has in place is important to a successful program.

The goal of implementing a therapy/service dog on campus is to improve the overall educational experience of students by reducing stress, providing further support systems, and serving as an educational learning tool. To ensure the best possible benefits

to the students it will be vital that all policies and procedures regarding the dog's health and training are followed. The implementation of a dog program on campus has many benefits to college students as it has the potential to be a great contributing factor to one's overall health and academic success while juggling the various roles of student, friend, family member, worker, and many others. The overall purpose is to incorporate a dog into the UND occupational therapy department by developing a protocol addressing the safety, legality and regulation issues as well as determining rules and guidelines of the dogs use. The next chapter will describe the process taken for developing the protocol and implementing it within the department and occupational therapy curriculum to enhance the learning experiences of the students.

## **CHAPTER III**

### **METHODOLOGY**

The purpose of the product is to outline the procedures for incorporating a therapeutic/service dog into the occupational therapy department to support overall well-being of students and faculty and as an educational tool for learning interventions. The protocol was developed based on the literature research and recommendations from contributing parties. The implementation of a therapy/service dog on campus is a new concept to the University of North Dakota and required contributions from a variety of stakeholders in order to abide by UND and the state of North Dakota's laws and regulations.

#### **Literature Review**

A literature review was conducted using research about current programs utilizing animal assisted services, specifically those used at universities. The authors researched the impact of college and graduate programs on students health and well-being, particularly that of stress, depression, and anxiety. In addition, literature referring to the benefits of dogs within facilities, staff/therapist views of animal use, and college student's views on animals on campus was examined. The literature review revealed that therapy/service dogs on campus were a beneficial tool for reducing stress and promoting healthy campus life (Williams, 2012). The overall health and well-being of the students, staff, and faculty should be a main priority when considering the impact that a



therapy/service dog program would have on an educational program. The literature indicated that infection control is vital to a successful program, with the need to consider the dogs training, certification, and cleanliness (Ernst, 2013; Reynolds & Rabschutz, 2011).

The process of implementing a therapy/service dog on campus was met with different hurdles. The main barriers to overcome in the process was determining ownership of the dog, liability insurance coverage, procedural policies for interaction, and insuring the health and well-being of the dog and those in which the dog encounters. It was also important to determine the key stakeholders to address in order to obtain approval for a therapy/service dog on campus.

### **Methodology**

The following methodology describes the process of developing the protocol and obtaining UND approval to incorporate a therapy/service animal on the University of North Dakota campus. The first step was to establish a meeting with the Senior Associate Dean of Education for the School of Medicine and Health Sciences (SMHS). The meeting focused on the ideas behind the proposed scholarly project and obtaining guidance as to where to begin the process. The Senior Associate Dean (personal communication, May 27, 2014) emphasized the importance of articulating the educational benefits associated with the therapy/service dog and further recommended to contact a UND SMHS alumni (personal communication, May 28, 2014) to obtain a research study pertaining to the emotional well-being of SMHS graduate students. The incorporation of the UND alumni's research study was used to emphasize the need to implement an innovative tool to positively impact graduate students well-being. The

Senior Associate Dean further directed the authors to contact the UND Chief of Police to identify the policies and procedures that need to be addressed.

Prior to meeting with the UND Chief of Police, the authors further researched a current dog program (PAWS) at the University of Minnesota (U of M) (Boynton Health Service, 2014). The authors contacted the PAWS program developer (personal communication, September 8, 2014) and discussed details of initiating such a program and the gatekeepers involved. The program developer guided the authors to focus on areas of the environment, interactions, hygiene, and certification of the dog.

She emphasized a discussion with the risk management office to look into liability and procedures. She also suggested contacting the Senior Associate of General Council at the U of M to gain further insight into the legality procedure that was utilized for incorporating a dog onto the U of M campus. During a meeting with the Senior Associate of General Council (personal communication, September 10, 2014) the authors gained information about looking into the University's current policy on dogs and how the dog would be certified to conduct the required duties.

After gaining background knowledge on how the U of M established the PAWS program and having a general guideline as to how to approach the process of initiating a program, the authors contacted the UND Chief of Police and the Associate Director of Safety (personal communication, September 11, 2014). The authors brought an outline of a protocol, establishing the main criteria to consider based on literature and previous meetings. The UND Chief of Police and the Associate Director of Safety gave further insight into the details required for the protocol. They discussed the approach for implementing the protocol on campus while adhering to UND's safety and legality

policies. They referred the authors to the Risk Management Insurance/Office Manager and the Associate General Counsel to inquire more information about insurance and liability of having an animal on campus and the ownership rights.

Next the authors conducted a meeting with the Risk Management Insurance/Office Manager (personal communication, September 22, 2014). Upon discussing the protocol and purpose for incorporating a dog within a graduate program, the Office Manager went on to contact the Risk Management Office of the state of North Dakota. The state of North Dakota gave approval and the procedural process for providing liability insurance coverage for the dog based on ownership. The Office Manager emphasized clarifying the ownership rights with the dog through our next meeting with the Associate General Counsel.

During the meeting with the Associate General Counsel (personal communication, September 23, 2014) it was determined that the primary handler would maintain ownership with the University using the dog on a loan basis. It was also discussed that the primary handler would be in charge of the dog expenses but the dog would be covered under State Liability and Risk while on campus. The Associate General Counsel (personal communication, November 3, 2014) drafted an ownership agreement between the primary handler and the university to be proposed to the University. Upon final approval from the University, ND Risk Management approved liability coverage for the dog under the loan agreement.

While conducting these meetings and going through the process, the authors continued to develop a protocol for the safety and procedures to be followed with the dog on campus. The authors then meet with the Chief of Police and the Associate Director of

Safety (personal communication, November 4, 2014) again to go over the protocol again and make small fixes to the wording. With verbal approval, the ensuing steps necessary consisted of written approval from the Dean of SMHS and the UND Provost.

To ensure the reasoning behind the implementation of a dog within a dual role of therapy and service animal on the UND campus was thoroughly articulated, the authors further put together purpose for proposal, specifically for the Dean of SMHS. The piece summarized the purpose, the literature supporting the implementation, the educational uses of the dog, and the future considerations for learning and research. To ensure the readability and that all specifics were addressed, the authors asked for further input from the Affirmative Action Coordinator at UND (personal communication, November 7, 2014). The Affirmative Action Coordinator gave specific feedback for finalizing the information appropriate for proposal to the Dean of SMHS. She also provided approval for a service dog role in the occupational therapy department. Upon finalizing the protocol, purpose for proposal, and loan agreement the authors continued the process to the Dean of SMHS for final approval. The Dean consulted with the Vice President of Finance prior to signing the loan agreement and authorizing permission for the occupational therapy department to incorporate a dog.

## **CHAPTER IV**

### **PRODUCT**

The purpose of the product was to develop a protocol for approval of implementing a therapy/service dog within the educational institution. Upon completing an extensive literature review and exploring current educational institutions that have implemented animals on campus, the authors determined appropriate measures needed for approval. The main factors considered for implementation were the safety and legality policies, dog hygiene and health, handler job responsibilities, environmental supports and barriers, and the hierarchical approval process.

The authors developed a legality and safety protocol for incorporating the therapy/service dog on campus in collaboration with university personnel. The protocol emphasizes the importance of training and certification on behalf of the handler and the dog to be in compliance with UND policy. Regulations were established for interaction with the therapy/service dog to ensure safety and adherence to the liability coverage. Hygiene and environmental factors were important considerations for providing a healthy and clean learning environment. The therapy/service dog was highlighted as an additional tool to promote well-being and provide learning opportunities. The Ecology of Human Performance (EHP) model reflects the intervention strategy of adapting the environment to enhance academic learning performance of students and faculty (Turpin & Iwama, 2011). Addressed in the protocol are the responsibilities of the handler(s). The protocol specifies the responsibilities of the primary handler in regards to the dogs

health and wellness, as well as the role of additional handlers in using the dog in educational activities. The complete legal and safety protocol is located in Appendix A.

The ownership of the therapy/service dog led to the development of a loan agreement between the primary handler and the University of North Dakota. The loan agreement indicates that the primary handler is responsible for the health and well-being of the therapy/service dog both on and off campus. The loan agreement establishes coverage for the dog under the State Risk Management liability insurance. Appendix B provides a copy of the loan agreement.

Upon finalizing the drafts of the protocol and loan agreement, the authors developed a final document summarizing the purpose of the protocol to incorporate a therapy/service dog to present to the appropriate UND personnel for final approval. It outlined supporting literature and resources, the methodology of addressing the appropriate personnel, and the legality and safety procedures to be put in place. See Appendix C for further details.

## **CHAPTER V**

### **SUMMARY**

The purpose of the scholarly project is to implement a therapy/service dog into the occupational therapy department on the University of North Dakota campus. The therapy/service dog will be utilized as a support system for student's health and well-being and as an educational modality to enhance students learning. The authors developed a safety and legality protocol to adhere to campus policies. A loan agreement was drawn up in collaboration between the primary handler and UND. Finally a proposed purpose outline was developed along the documents attached in the appendices were presented to appropriate UND personnel for final approval.

The project is unique in that there are currently no therapy/service animals utilized in a educational program at North Dakota universities. The project is precedent for future consideration by other universities or facilities within the state of North Dakota. Challenges for implementation of the product included the process of adhering to the demands of the hierarchical process. The authors learned the extensive procedures for communication protocol involved in implementing a new program and policy. Creating and implementing a new program involved multiple steps for approval from a variety of university and state officials. An advantage of this scholarly project is that others can reference it as a starting tool for future implementation of therapy/service dogs as an educational tool utilized in an educational program.

Limitations of the scholarly project include the lack of research pertaining to

therapy/service dog programs. There is currently limited research on the impact that therapy/service animals have on college students and their stress levels.

Implementation of a therapy/service dog within the occupational therapy department sets the stage for several academic learning opportunities. Future students will have the opportunity to design research studies to explore the impact of the dog on student's and faculty's health and well-being. Outcome measures can be utilized to measure the impact of the therapy/service dog on student's stress, anxiety, and depression levels. A future research project can be conducted on the overall mood of students before and after animal interactions. The therapy/service dog can provide future educational opportunities for students to learn about the skills that therapy/service dogs possess for individuals with disabilities. Students can participate in projects such as community education events and advocate for the use of therapy/service dogs. Students will have the opportunity to learn how to train and work with therapy/service dogs to provide services to individuals or groups. The dog will serve as an additional innovative intervention strategy to enhance the occupational therapy curriculum.



## **APPENDICES**

**APPENDIX A**  
**LEGALITY AND SAFETY PROTOCOL**

# **LEGALITY AND SAFETY PROTOCOL**

## **Incorporating a Therapeutic/Service Dog in the UND Occupational Therapy Department**

*The University of North Dakota (UND) reserves the right to enforce all relevant rules for the use of a therapy/service dog in the Occupational Therapy program. UND also reserves the right to revoke permission granted for the campus presence if the therapy/service dog or handler(s) fails to follow the requirements set forth in this protocol.*

### **1. PURPOSE**

- 1.1. The purpose of the therapeutic/service dog within the occupational therapy department on UND campus is to improve the overall health and well-being of students and faculty by reducing stress and providing further support systems. Furthermore, future research can be conducted to determine the effectiveness of having the therapeutic/service dog within the educational setting and the impact on academic learning.
- 1.2. The dog also possesses educational benefits as an additional tool for the classroom in the use of animal assisted activities within the clinical setting.

### **2. LEGALITY AND SAFETY**

- 2.1. HANDLER(S): The *primary handler* is defined as the owner of the dog, *secondary handler(s)* are additional UND faculty members certified to handle the dog.
  - 2.1.1. The handler(s) and dog will complete certification requirements through a nationally recognized animal training organization.
  - 2.1.2. The handler(s) must be in full control of the animal at all times.

- 2.1.3. The handler(s) must ensure that the animal is on a leash except when performing therapeutic/service activities
- 2.1.4. The handler(s) must provide appropriate identification on the dog at all times, identifying that it is a trained therapy/service dog.
- 2.1.5. The handler(s) must carry and be able to produce UND issued identification while in any UND facility.
- 2.1.6. The handler(s) must take responsibility for the behavior of the animal in private and public places, and for due care and diligence in the use of the animal on campus.
- 2.1.7. The handler(s) must be responsible for the immediate clean up after the animal, including sanitary disposal of animal wastes.
- 2.1.8. The primary handler must ensure that the dog is licensed in accordance with the City of Grand Forks and County of Grand Forks and wear a valid vaccination tag and proof of licensing shall be provided to the Office of Safety annually.
- 2.1.9. The primary handler is responsible for the health of the dog and must provide verification from a qualified veterinarian that all vaccinations appropriate for that type of dog are current and a copy submitted to the Office of Safety annually.
- 2.1.10. The primary handler is responsible for providing all required documents, licensing, etc. that may pertain to any educational events
- 2.1.11. The handler(s) is responsible for feeding the therapy/service dog. Students and faculty will not be permitted to feed the dog.
- 2.1.12. The handler(s) is responsible for maintaining cleanliness within the designated area. This includes using antibacterial wipes to wash down any furniture that the dog comes into contact, such as chairs or tables.
- 2.1.13. The handler(s) is responsible for cleaning the dog after being outside. In the case of rain, snow, or other weather conditions, the dog's feet and coat will be properly wiped down using a clean towel. After use the towel will be

disposed into a laundry bin, which the handler(s) will be responsible for washing.

2.1.14. The handler(s) is responsible for completing the daily hygiene tasks for the animal. This will include, but is not limited to:

- The dog will be bathed regularly. Bathing can include: water bath with safe cleaning products or use of an animal safe dirt and dander coat product. Bathing requires particular attention to feet and peri areas.
- The dog's feet should have excess hair trimmed between pads.
- Toenails need to be kept short and smooth
- The dog's ears and eyes checked for cleanliness.

## 2.2. QUALIFICATIONS OF DOG

2.2.1. The dog must be certified by a nationally recognized animal training organization and certificate must be sent to the Office of Safety annually.

2.2.2. The dog must wear appropriate certification identification at all times

2.2.3. The dog must be healthy and free of parasites, disease, infections, and illnesses

2.2.4. The dog must be up to date with vaccinations and a copy of vaccinations must be sent to Office of Safety annually.

### 2.2.5. Description of Services

- The dog will be available for interaction with students and staff during scheduled times throughout each day
- The dog will be available to assist lectures in the classroom to help teach animal-assisted activities
- The dog may attend approved UND sponsored events to serve as a therapeutic/service agent when requested by event organizer(s)

## 2.3. ENVIRONMENT

### 2.3.1. Equipment

- The primary handler is responsible for providing the appropriate equipment for the care of the therapy/service dog. This will include but is not limited to:
- Collar with Credentials, Leash, Dog Bed, Kennel, Gate, Water Bowl, Food Bowl, Treats, Disposable Bags, Scooper, Towels, Brush, Antibacterial Wipes

#### 2.3.2. Interaction Area

- The therapy/service dog will have a designated area within the department of occupational therapy in which to interact with students and faculty to adhere to the Office of Safety Guidelines. The therapy/service dog's primary residence while on institutional grounds will be in the primary handler's office. Within the department there will be hand washing stations and hand sanitizer available. Students and faculty should wash hands with soap and water before and after interaction with the dog.
- Alternative meeting space will be scheduled for the handler to use when meeting with individuals who do not feel comfortable with the dog present

#### 2.3.3. Interaction Times

- Interaction times will be scheduled on a routine basis, depending on the availability of the handler and the health of the dog.
- Interaction times will not interfere with the educational responsibilities of the department or the school.

#### 2.3.4. Interaction Restrictions

- A certified handler will be with the therapy/service dog at all times during interactions.
- Students and faculty will not be left alone with the dog without the handler present
- The therapy/service dog will be available for interactions with students for a maximum of 4 hours per day

- The therapy/service dog will be required to have scheduled rest periods throughout the day
- Students and faculty will not be able to utilize the dog's services during rest periods.
- A schedule will be posted with available times for students and faculty to interact with the dog.

#### 2.4. HYGIENE

- 2.4.1. Student, faculty members, and handlers will be responsible for adhering to hygiene rules in accordance to nationally accepted standards.
- 2.4.2. The students and faculty are encouraged to use soap and water or hand sanitizer
- 2.4.3. Students or faculty with any open wounds that are uncovered or not properly bandaged will not be permitted to pet the animal for infection control purposes.
- 2.4.4. Students or faculty with any communicable illness will not be permitted access to the animal.

#### 2.5. INSURANCE

- 2.5.1. Liability
  - The handler(s) liability coverage, while the dog is performing under the Assistance Animal Loan Agreement is through the North Dakota State Risk Management Fund.
- 2.5.2. Medical
  - Owner/primary handler will maintain an insurance policy regarding medical and liability coverage that is associated with the dog and a copy of the policy must be sent to the Office of Safety

Liability for the dog's actions will be covered through North Dakota Risk Management Division *only if* the dog is under the care, control, and custody of the primary or secondary handler(s) at the time of an incident.

**APPENDIX B**

**ASSISTANCE ANIMAL LOAN AGREEMENT**



## **Assistance Animal Loan Agreement**

Janet Jedlicka (“Owner”), hereby agrees to loan, Dakota Buddy, a golden retriever (“the dog”), whom is specifically trained as a therapy/service dog, to the University of North Dakota Occupational Therapy Department (OT Department) for appropriate therapeutic, educational, and research activities within the OT Department and the School of Medicine and Health Sciences (SMHS).

A. The dog will be used by the OT Department and the SMHS for the following purposes:

1. Dakota Buddy will be used to enhance the occupational therapy educational program by incorporating animal assisted interventions in working with clients with psychosocial or physical disabilities.
2. Dakota Buddy will provide opportunities for students to learn how to train a service dog and assess/educate clients who may be candidates for using a service dog to access environments and be able to engage in valued occupations.
3. Dakota Buddy will be used as a therapeutic resource to facilitate coping skills and stress management techniques for students enrolled in programs at the SMHS.
4. Dakota Buddy will also provide opportunities for students to develop scholarly projects and independent studies to determine the effectiveness of use of a therapy/service dog (with approval of the Institutional Review Board).

These purposes can be revised at any time upon the written agreement of the parties.

B. The use of the dog is subject to the attached protocols, which are incorporated into this Agreement by reference.

C. Owner agrees to the following:

1. To be responsible for food, shelter, and daily care of the dog and the dog’s medical expenses, including all required vaccinations and immunizations.
2. To provide the University’s Office of Safety and Environmental Health with evidence of all required vaccinations and immunizations

3. To provide the University with a certificate showing that the dog has been trained as a therapy/service dog.
4. To ensure that the dog is licensed, if required, by either the City of Grand Forks or Grand Forks County.
5. To be the primary handler of the dog while it is on campus. The OT Department will identify two additional handlers who shall be specifically trained and certified to assist in the implementation of appropriate activities that are sanctioned as part of the mission and strategic initiatives of UND.

D. The University agrees:

1. While the dog is being used by the OT Department or SMHS pursuant to this Agreement, those persons handling the dog will be considered employees of the University and will be covered under the North Dakota state risk management fund for their negligence or wrongful acts or omissions while acting within the scope of their duties under this Agreement.

E. This Agreement shall have an initial term of one year and may be renewed by the parties for additional terms of one year upon the written agreement of the parties.

F. This Agreement will terminate if the dog is no longer able to function in its role of therapy/service dog or if Owner is no longer employed by UND and arrangements have not been made for the dog's continued use by the University.

Signed by:  
Owner

\_\_\_\_\_  
Janet Jedlicka

\_\_\_\_\_  
Date

University of North Dakota

\_\_\_\_\_  
Joshua Wynne, M.D., M.B.A., M.P.H  
Vice President for Health Affairs and  
Dean, School of Medicine and Health Sciences

\_\_\_\_\_  
Date

**APPENDIX C**

**PURPOSE OF A THERAPY/SERVICE DOG WITHIN THE OCCUPATIONAL  
THERAPY DEPARTMENT**

## **Purpose of a Therapy/Service dog within the Occupational Therapy Department**

### **The Purpose**

- Dog used as an adjunct to the curriculum to enhance student learning of innovative therapeutic interventions for a wide variety of clientele.
- Improve the overall health and well-being of students and faculty by reducing stress and providing an additional support system.

### **Future Opportunities**

- Research to determine the effectiveness of having the therapy/service dog within the educational setting
- Research the impact of dog on academic learning

**Enhancement of the Occupational Therapy Educational Program:** *The following are further addressed in the contract developed by UND legal.*

The dog will be used as:

- Teaching tool to use for interventions with various populations
- Teaching tool for how to utilize a service animal
- Research opportunity
  - Psychosocial impact on staff and graduate students in SMHS
  - Interprofessional research documenting the use of the dog as a modality in practice
- Therapeutic modality for staff and students

Overall the dog would serve a dual purpose, acting as a therapeutic resource for students, staff, and faculty as well as a teaching tool within the educational curriculum.

**Areas Addressed within Legality and Safety Protocol:** *The following are further addressed in detail in the attached safety and legality protocol*

- The Dog
  - Certification and Training, Health of Dog, Vaccinations
- Handler
  - Training and Requirements
- Environment
  - Equipment, Interaction Areas, Times of Interaction, Hygiene
- Liability
- Insurance

### **Communication Timeline**

- **Gwen Halaas** – M.D., M.B.A., Senior Associate Dean for Education, School of Medicine & Health Sciences
- **Gwen Thompson** – M.D., UND Alum
- **Tanya Bailey** - MSW, LICSW, Animal Assisted Program Specialist, PAWS Program Developer (U of M)
- **Gary Brisbin** - Senior Associate General Council (U of M)
- **Eric Plummer** – Assistant Vice President Public Safety/UND Police Chief
- **Terry Wynne** - Associate Director of Safety
- **Chuck Evans** – Associate General Counsel
- **Corrinne Kjelstrom** - Risk Management: Insurance/Office Manager
- **Donna Smith**- Director of Affirmative Action and ADA coordinator

### **Literature on the Benefits of Therapy Animals**

The ultimate benefit of utilizing a therapy animal within a therapeutic environment is to motivate and encourage clientele to participate in functional interventions. Common benefits reported by patients after interacting with a dog during therapy included increased mood and social interactions and decreased levels of depression, stress, and fatigue (Beck et al., 2012; LeRoux & Kemp, 2009; Majic, Gutzmann, Heinz, Lang, & Rapp, 2013; Marcus et al., 2013). Furthermore, Velde, Cipriani, and Fisher (2005) stated that the use of pets could help facilitate occupation-based activities, as Rossetti et al. (2008) explained pets foster staff's creativity for treatment interventions. The literature suggests that incorporating a dog within a facility has a positive impact on the staff when considering the environmental surroundings, therapist-patient rapport, and personal gains (Bibbo, 2013; Rossetti et al., 2008; Stewart & Strickland, 2013) Rossetti et al. (2008) reported that staff felt less stressed during work after interacting with a dog and staff reported that having an animal around the facility was an incentive to working there.

Upon completion of an extensive research study at the UND School of Medicine, Thompson, McBride, and Halaas (2013), found that a significant amount of medical students reported that when experiencing stress they had increased rates of depression. Furthermore the authors found that the lack of social supports contributed to their depression, which in turn was linked to academic burnout. Similar results were reported in a study by Pfeifer, Kranz, and Scoggin (2008), in which 66.4% of occupational therapy students reported their current stress levels were at an above average level or higher. According to Adamle, Riley, and Carlson (2009), 92.5% of college students reported that their pets at home are an integral part of their life with 90.3% receiving support and comfort from interactions with their pet.

## REFERENCES

- Adamle, K.N., Riley, T.A., & Carlson, T. (2009). Evaluating college student interest in pet therapy. *Journal of American College Health*, 57(5), 545-548.
- Aiken, J. (2012). Meet Monty. Retrieved from <http://library.law.yale.edu/news/meet-monty>
- American Veterinary Medical Association. (2014). *U.S. Pet Ownership Statistics*. Retrieved from <https://www.avma.org/KB/Resources/Statistics/Pages/Market-research-statistics-US-pet-ownership.aspx>
- Beck, C.E., Gonzales Jr., F., Haertlein Sells, C., Jones, C., Reer, T., Wasilewski, S., & Zhu, Y.Y. (2012). The effects of animal-assisted therapy on wounded warriors in an occupational therapy life skills program. *U.S. Army Medical Department Journal*, 8, 38-45.
- Bibbo, J. (2013). Staff members' perceptions of an animal-assisted activity. *Oncology Nursing Forum*. 40(4), 320-326. doi: 10.1188/13.ONF/E320-E326
- Boynton Health Services (2014). PAWS: Pet away worry and stress. University of Minnesota. Retrieved from <http://www.bhs.umn.edu/services/wellness-paws.htm>
- Daniels, M. (2010). Dogs on twin cities college campuses help students cope with end-of-semester stress. Retrieved from <http://www.twincities.com/ci16868791>
- DiSalvo, H., Haiduven, D., Johnson, N., Reyes, V.V., Hench, C.P., Shaw, R., & Stevens,

- D.A. (2006). Who let the dogs out? infection control did: Utility of dogs in health care settings and infection control aspects. *American Journal of Infection Control*, 34(5), 301-307. doi:10.1016/j.ajic.2005.06.005
- Ernst, L.S. (2013). Animal-assisted therapy: Paws with a cause. *Nursing Management*, 16-19. doi: 10.1097/01.NUMA.000047181.19436.19
- Fick, K.M. (1993). The influence of an animal on social interactions of nursing home residents in a group setting. *American Journal of Occupational Therapy*, 47(6), 529-534.
- For stressed college students, a doggone good way to relax. (n.d.). *USATODAY.COM*. Retrieved from <http://usatoday30.usatoday.com/news/education/story/2012-05-13/dogs-stress-relief-on-campus/54921444/1>
- Haldorsen, H., Hasle Bak, N., Dissing, A., & Petersson, B. (2014). Stress and symptoms of depression among medical students at the university of copenhagen. *Scandinavian Journal of Public Health*, 42, 89-95. doi:10.1177/1403494813503055
- Hamaideh, S.H. & Hamdan-Mansour, A.M. (2014). Psychological, cognitive, and personal variables that predict college academic achievement among health sciences students. *Nurse Education Today*. 34(5), 703-708. doi: 10.1016/j.nedt.2013.09.010
- Johnson, R.A., Meadows, R.L., Haubner, J.S., & Sevedge, K. (2008). Animal-assisted activity among patients with cancer: Effects on mood, fatigue, self-perceived health, and sense of coherence. *Oncology Nursing Forum*, 35(2), 225-232. doi:10.1188/08.ONF.225-232

- Junge, C., & MacDonald, A. (2011). Therapy/service dog offers stress relief at work. Retrieved from [www.health.harvard.edu/blog/therapy-dog-offers-stress-relief-at-work](http://www.health.harvard.edu/blog/therapy-dog-offers-stress-relief-at-work) 201107223111
- Klainberg, m., Ewing, B., & Ryan, M. (2011). Reducing stress on a college campus. *Journal of the New York State Nurses Association*, 4-6.
- Lefebvre, S.L., Waltner-Toews, D., Peregrine, A.S., Reid-Smith, R., Hodge, L., Arroyo, L.G., & Weese, J.S. (2006). Prevalence of zoonotic agents in dogs visiting hospitalized people in ontario: Implications for infection control. *Journal of Hospital Control*, 62, 458-466. doi: 10.1016/j.jhin.2005.09.025
- Le Roux, M.C., & Kemp, R. (2009). Effect of a companion dog on depression and anxiety levels of elderly residents in a long-term care facility. *Psychogeriatrics*, 9, 23-26. doi: 10.1111/j.1479-8301.2009.00268.x
- Mahmoud, J.S.R., Staten, R.T., Hall, L.A., & Lennie, T.A. (2012). The relationship among young adult college students' depression, anxiety, stress, demographics, life satisfaction, and coping skills. *Issues in Mental Health Nursing*, 33(3), 149-156. doi: 10.3190/01612840.2011.632708
- Majic, T., Gutzmann, H., Heinz, A., Lang, U.E., & Rapp, M.A. (2013). Animal-assisted therapy and agitation and depression in nursing home residents with dementia: A matched case-control trial. *American Journal of Geriatric Psychiatry*, 21(11), 1052-1059. doi: 10.1016/j.jagp.2013.03.004
- Marcus, D.A., Bernstein, C.D., Constantin, J.M., Kunkel, F.A., Breuer, P., & Hanlon,



- R.B. (2013). Impact of animal-assisted therapy for outpatients with fibromyalgia. *Pain Medicine, 14*(1), 43-51. doi: 10.1111/j.1526-4637.2012.01522.x
- Maville, J.A., Kranz, P.L., & Tucker, B.A. (2004). Perceived stress reported by nurse practitioner students. *Journal of the American Academy of Nurse Practitioners, 16*(6), 257-262.
- National Alliance on Mental Illness. (2014). Learn about the issue. Retrieved from [http://www.nomi.org/Content/NavigationMenu/Find\\_Support/NOMI\\_on\\_Campus/1/Learn\\_About\\_The\\_Issue/Learn\\_About\\_The\\_Issue.htm](http://www.nomi.org/Content/NavigationMenu/Find_Support/NOMI_on_Campus/1/Learn_About_The_Issue/Learn_About_The_Issue.htm)
- Pfeifer, T.A., Kranz, P.L., & Scoggin, A.E. (2008). Perceived stress in occupational therapy students. *Occupational Therapy International, 15*(4), 221-231. doi: 10.1002/oti.256
- 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. doi: 10.1080/10691316.2011.624934\
- Rossetti, J., DeFabiis, S., & Belpedio, C. (2008). Behavioral health staff's perceptions of pet-assisted therapy: An exploratory study. *Journal of Psychosocial Nursing, 46*(9), 28-33.
- Ruiz-Aranda, D., Extremera, N., & Pineda-Galan, C. (2014). Emotional intelligence, life satisfaction and subjective happiness in female student health professionals: The mediating effect of perceived stress. *Journal of Psychiatric and Mental Health Nursing, 21*, 106-113. doi: 10.1111/jpm.12052
- Service and Companion Animals - Student Handbook - Macalester College. (n.d.).

*Service and Companion Animals - Student Handbook - Macalester College.*

Retrieved from

<http://www.macalester.edu/studentaffairs/studenthandbook/campuspoliciesandprotocols/serviceanimals.html>

Service Animal Basics. (2014). - *Pet Partners*. Retrieved from

[http://www.petpartners.org/Service\\_Animal\\_Basics](http://www.petpartners.org/Service_Animal_Basics)

Silveira, I.R., Santos, N.C., Linhares, D.R., (2011). Protocol of the animal assisted activity program at a university hospital. *Revista da Escola de Enfermagem da USP*, 45(1), 283-288.

Stewart, A., & Strickland O. (2013). A companion animal in a work simulation: The roles of task difficulty and prior companion-animal guardianship in state anxiety.

*Society & Animals*, 21, 249-265. doi: 10.1163/15685306-12341287

Thompson, G.E., McBride, R.B., & Halaas, G.W. (2013). *Stigma, the utilization of services for mental health issues, coping style and social support in relation to depression and burnout in medical students* (Unpublished doctoral dissertation). University of North Dakota, Grand Forks, ND.

Turpin, M., & Iwama, M.K. (2011). *Using occupational therapy models in practice: A field guide*. Edinburgh: Churchill Livingstone/Elsevier.

University of Minnesota. (2014). PAWS: Pet away worry & stress. Retrieved from

<http://www.bhs.umn.edu/services/wellness-paws.htm>

Velde, B.P., Cipriani, J., & Fisher, G. (2005). Resident and therapist views of animal-

assisted therapy: Implications of occupational therapy practice. *Australian Occupational Therapy Journal*, 52, 43-50. doi: 10.1111/j.1440-1630.2004.00442.x

Williams, K. (2012). Finals week tension eased by four-legged therapists. Retrieved from [http://www.news.emory.edu/stories/2012/05/er\\_law\\_school\\_finals\\_therapy\\_dogs/campus.html](http://www.news.emory.edu/stories/2012/05/er_law_school_finals_therapy_dogs/campus.html)

Young, J.S. (2012). Pet therapy: Dogs de-stress students. *Journal of Christian Nursing*, 29(4), 217-221.

