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A Clinical Practice Change Initiative to Incorporate Animal Assisted Therapy in Advanced Practice Registered Nurses' Clinical Practice for Children and Adolescents

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A CLINICAL PRACTICE CHANGE INITIATIVE TO INCORPORATE ANIMAL ASSISTED THERAPY IN ADVANCED PRACTICE REGISTERED NURSES' CLINICAL PRACTICE FOR CHILDREN AND ADOLESCENTS

by

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ABSTRACT

A CLINICAL PRACTICE CHANGE INITIATIVE TO INCORPORATE ANIMAL ASSISTED THERAPY IN ADVANCED PRACTICE REGISTERED NURSES' CLINICAL PRACTICE FOR CHILDREN AND ADOLESCENTS

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Background: Children and adolescents mental health care needs is vital for the future of our nation's welfare (American Psychology Association, 2014). Research has indicated AAT may be a considerable choice to help with pediatrics mental health care and may be utilized as an *adjunct* to *enhance* the care within the psychiatric healthcare field (Chandler, 2012a, 2012b). AAT has become popular within the healthcare realm (Friesen, 2009; Uyemura, 2016) and is a "unique" method for providing "patients" health care, which may improve patient outcomes (Chandler, p. 4, 2012a; Cowell, 2013; McCullough, 2016; McQuarrie & Urichuk, 2008). Research supports that "providers" in the health care field may "evade" this method of an alternative approach as an *intervention* due to lack of understanding (Berget, Ekeberg, & Braastad, 2008; Palley, O'Rourke, & Niemi, 2010; Uyemura, 2016; Williams & Jenkins, 2008).

Purpose: The purpose of this doctoral capstone project was to (a) explore and assess perceptions of Advanced Practice Registered Nurses (APRNs) related to AAT with traditional Western treatment, as compared to only traditional treatment, at a behavioral health care center for the pediatric population, ages 4 to 16, and then (b) propose the acceptance of a practice change initiative. APRNs in mental health were of particular focus for this project.

Methods: A descriptive exploratory study in a survey questionnaire Likert-scale format was implemented among the APRNs to assess their perception in utilizing AAT in clinical practice.

Results: Six APRNs volunteered to participate in this capstone project at a small community-based behavioral health care center. A 26-item questionnaire was administered as the pretest, followed by an educational component, the intervention about AAT program implementation and clinical practice guideline process. Immediately after the training, the APRNs completed the same questionnaire as the posttest. Descriptive data reflected a significant difference observed between the tests that displayed a large effect in knowledge and utilization of AAT.

Conclusion: A strong influence was detected on the APRNs professional understanding of AAT.

Keywords: advanced practice registered nurses, alternative medicine - therapy, animal assisted activities - intervention - therapy, children and adolescents, health care provider, pediatric, pet therapy

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DEDICATION

For my husband Brandon, I wish to express my sincerest and most heartfelt gratitude for his love, support, and kindness through this process. Thank you for believing in me with this new chapter in our lives. To my friends and family who have helped me along the way, thank you for always being there in time of need. I don't know what I would have done without these significant people in my life. And a special thank you to my little Pet Partner our French Bulldog named Fleur de Lis. She and I have been through the process of Pet Partnering on the Mississippi coast and has been a great attribute for inspiration with this project. I am blessed to have had a great support system.

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LIST OF ABBREVIATIONS

APRN	Advanced Practice Registered Nurses
AAT	Animal Assisted Therapy
AAT-C	Animal Assisted Therapy-Counseling
AAI	Animal Assisted Intervention
DNP	Doctor of Nursing Practice
EFP	Equine-Facilitated Psychotherapy
IAHAI	International Association of Human Animal Interaction Organization
NAMI	National Alliance on Mental Illness
PICOT	Population-Intervention-Comparison-Outcome-Time
SHEA	Society for Healthcare Epidemiology of America
SWOT	Strengths-Weaknesses-Opportunities-Threats

CHAPTER I - INTRODUCTION

The primary focus of this doctoral capstone project was to initiate a proposal a clinical intervention for Advanced Practice Registered Nurses (APRN) to incorporate *Animal Assisted Therapy* (*AAT*) for children and adolescents to help with their *mental health* care *needs*. As a pediatric clinical nurse specialist; psychiatric mental health nurse practitioner student's viewpoint, a need became evident for an introduction of AAT and the educational components involved before proceeding to include Animal Assisted Intervention (AAI) in a clinical practice change initiative. This researcher evaluated psychiatric mental health APRNs stance on AAT as compared to traditional Western treatment by utilizing an assessment tool for testing purposes. And finally, this researcher proposed the acceptance of a practice change initiative for mental health APRNs working with *children and adolescents*, ages 4 to 16 in a behavioral healthcare service center. By utilizing a theoretical framework as a guide, the "Advanced Nursing Practice Essentials of Doctoral Education" (American Association of Colleges of Nursing [AACN], 2006; Chism, 2013; Magnan, 2013; Zaccagnini & White, 2014), and by applying the evidence in the literature and insight assessment of AAT will provide the basis for proposing a practice change initiative for APRNs working in mental health with the *pediatric population*.

My goal is to improve mental health care and provide quality care for improved health outcomes. This idea may improve mental health care, decrease stigma, and may make an incentive to seek mental health care. For the purpose of this project, the primary focal area will be on APRNs and mental health clinical practice for children and adolescents. This section will include the background and significance of AAT, mental

health needs of children and adolescents, information on AAT/AAI, findings, DNP essentials, needs assessment, the project statement, purpose statement, project question in a PICOT format, and theoretical framework.

Background and Significance

APRNs may be able to use AAT as an alternative to medical intervention in terms of *psychosocial* and *physical welfare* of health (DeCourcey, Russell, & Keister, 2010; Cowell, 2013). Additionally, the positive impact and favorable objectives for this alternative approach may improve financial efficiency and client outcomes in the health care locale. Researchers and other authors found in the USM library database resources, such as Ovid, Nursing, PsychInfo, and Cinahl, evidence supports cost and health benefits for patients that have encountered from AAT experiences (Chandler, 2012a, 2012b, 2012c, 2012d; Fine, 2010, 2015; Goddard & Gilmer, 2015; Greenchimney.org, 2016; Mallon, Ross, Klee, & Ross, 2010; Mano, Mikulincer, & Shaver, 2011; Marcus et al., 2012, 2013; Parish-Plass, 2008; Petpartners.org, 2015).

Researchers have provided a broader expansion of *knowledge* for AAT in combination with traditional Western treatment, but current recommendations are first to assess educational needs of APRNs (Berget et al., 2008; Williams & Jenkins, 2008). Researchers also emphasized the need for more studies to assess healthcare teams' knowledge in the *use* of AAT (Berget et al., 2008; IOM, 2012; Risley-Curtis, 2010; Williams & Jenkins, 2008). Additionally, Palley and colleagues (2010) recognized that the vast majority of advocates of AAT deeply support its use, but physicians generally do not. The authors stated for medical practitioners to accept AAT as a standard of care,

substantial evidence is necessary in terms of the intervention of AAT, its need, and associated education that precedes its medical use.

Mental Health Needs for Children and Adolescents

The *mental health needs* for children are vital for the future health of our nation. There are approximately 15 million children with a mental health disorder (American Psychology Association [APA], 2014). And potentially many more people are at risk for developing a mental health disorder. Currently, an estimated 7% of children receive the appropriate care so desperately needed (APA, 2014).

Mental health services across the nation are alarmingly inadequate as evidenced by a grade of D across the nation (National Alliance on Mental Illness [NAMI] 2009). Mississippi received a grade of F, which indicated failing. Recent encounters with mental health providers emphasized there are not enough mental health providers and especially there are not enough children and adolescent psychiatric providers.

Mississippi's latest Medicaid and CHIP enrollment report revealed 786,861 with children numbered at 396,191 as of December 2014 and a dramatic increase, as compared to December 2013, which then totaled 715,979 with children number at 323,639 (Mississippi Division of Medicaid, 2015). Access to mental health care is difficult, especially with a shortage of trained pediatric mental health care providers (Gentile, 2014).

AAT/AAI

Animal Assisted Therapy encompasses many definitions. *Pet Partners* (2012), described AAT and *animal assisted activities* (*AAA*) as frequently used conjunctively and is described as the "traditional treatment" enhanced by the influence of the *pet partner*.

Pet Partners (2012) refer to a pet partner as a selected and well-trained animal and a human counterpart referred to as the *handler* (Cowell, 2013; McQuarrie & Urichuk, 2008). Horowitz (2010) defined AAT as "goal-directed" interventions from an animal that meets specific requirements in a treatment method with individuals. The term "pet therapy" has been referred to historically as AAT but this term is misleading, connotes a wrong notion, and does not communicate what AAT entails (McQuarrie & Urichuk, 2008; Pet Partners, 2012). Limited research material and lack of quantitative studies exist in terms of AAT and clinical practice.

There are multiple cases suggesting support for positive impact in improving and promoting positive change across the lifespan (Chandler, 2012a, 2012b, 2012c, 2012d; Pet Partners, 2012). McQuarrie and Urichuk (2008) reported a documented experience that poignantly illustrates a hospitalized woman who did not want visitors due to her medical condition and how she negatively viewed her body. The Pet Partner team made a significant difference in the patient's life after a brief unanticipated encounter made by the pet partner that showed she was *non-judged*. The woman expressed how delighted she was for that brief encounter made by the team and then was able to allow visitations (Cowell, 2013; McQuarrie & Urichuk, 2008).

AAT is usually canine but some of the other animals can be included within the definition. Another valuable form of AAT is equine-facilitated psychotherapy (EFP), which is a type of psychotherapy used by licensed equine therapists to improve people's *social*, *mental*, and *physical health*, but is an experiential methodology that requires an applied tactical experienced team (Kruger & Serpell, 2010). Additionally, the authors revealed there are various components of specialized skills such as riding and grooming

involved when caring for horses. Licensed and credentialed members such as the mental health professional and EFP personnel generally conduct the methodology (Kruger & Serpell, 2010). Moreover, the authors contend the aim is to establish a therapeutic relationship, develop *goals and objectives* that are clearly defined, and improve *psychosocial*, *physical* and *behavioral* performance (Kruger & Serpell, 2010).

There are some hindering factors that may influence the type of therapy implemented. One of the main differences between AAT and EFP is that AAT can be used at any point in time; EEP cannot (Hart, 2010). More importantly, EFP involves a larger area and armature to board horses, which may also restrict the number of sessions to one per week, and requires a significant amount of organizational skills for the therapy sessions. There are only a few equine-facilitated programs with the necessary training for EFP in any given geographical area. Horse owners should have the proper training and *knowledge base* to aid in facilitation of an effective EFP program (Hart, 2010).

Dr. Cynthia Chandler (2012a) published a book on how to incorporate animals in therapy sessions. Chandler developed an AAT graduate curriculum at a university where she teaches and is a licensed professional counselor. She provides AAT education and training on campus and through distance learning. Chandler reported another treatment modality of AAT is with counseling (AAT-C). As an advocate for AAT, she has provided groundwork necessary for incorporating AAT in counseling. She revealed she wanted to share her compassion and the unconditional love that her pets have with others. Furthermore, she made a statement that describes ultimately what AAT manifests which is taking care of patients. Chandler specified, "Regardless of the variation in descriptive titles, each therapy pet serves the same basic purpose: working in partnership with a

professional human therapist to provide compassionate and stimulating therapy designed to facilitate human client recovery" (Chandler, 2012a, p. 3).

Chandler (2012a) attested to two forms of AAT-C in practice. Using the therapist own pet that has had the proper screening and training is one form that she declared is the better of the two because the animal's owner knows the animal's behavior. The other method involves incorporating a third party source that is usually volunteers who have been trained animal handlers with their pets that have been screened, trained, and qualified as the assisted resource. Additionally, Chandler remarked that this process involves more components to include in therapeutic setting. The healthcare professional provides direct supervision, guidance and may involve facilitating interaction of the pet handler and therapy pet with the clients. Furthermore, the second method may pose disadvantages such as confidentiality, client permission of having a third source in the setting, assurance, and certainty of the handler and pet, and the task of seeking out trusted volunteer programs in the local area that provide animal therapy. Chandler had granted permission to utilize any of her sample forms from her literature for the implementation and practice of AAT (see Appendix A, Chandler Permission).

Pet Partners (2015) is the nation's largest volunteer nonprofit organization that has provided superior recognition for quality, guidelines, research, education, training, community service, community networking (veterinary, hospitals, schools, etc.), and human and animal welfare (see Appendix B, About Pet Partners). They characterize themselves by their goals of developing and establishing standards and guidelines through best practices. The organization provides training to ensure safety of human and animals by training the volunteers to meet higher level of standards with professionalism

and of confidentiality for patients. Pet Partners indicated they are in accordance with International Association of Human-Animal Interaction Organizations (IAHAI, 2014) white paper guidelines (see Appendix C, IAHAI), and the Society for Healthcare Epidemiology of America (SHEA, 2015) that require all potential and present pets pass a skills and aptitude test every two years, along with safety requirements for infection prevention and control. Other distinguishable standards include infection control, animal diet prohibits raw protein intake and non-aggressive animals. Pet Partners provide general liability insurance (a small fee), handler education, free continuing education, re-evaluations of team, and protocols on infection control for the handler and their pet (see Appendices: D, Program Requirements; E, Become a Handler; and F, Fees for Volunteers). The Mississippi Gulf coast has a local Pet Partner team that has established positive growing climate for hospitals, nursing homes, libraries, and other facilities. Through local Pet Partners chapters, volunteer animals and their handlers are thoroughly screened before volunteering at organizations. The registered volunteers within the Pet Partners program ensure safety for those involved within the required context of Pet Partners course to include approval by veterinarian and team evaluators (see Appendix G, Community Partner Responsibilities). Through Pet Partners volunteers program, providing AAT at the proposed location could save cost by not having to pay the volunteer for their services, not having to take a staff member away from work. This method is a cost benefit for both the healthcare organization and clients (Marcus et al., 2012). Pet Partners reported that there are some advantages of having a pet partner team in a healthcare setting. The pet partner team has the knowledge base for safe practice,

safe interactions, and will address the needs of the animal for breaks or distractors that may occur (see Appendix H, LEARN).

Chandler (2012a) recommended that individuals pursuing to incorporate AAT in practice have formal training. Chandler has provided multiple sites in her textbook such as Pet Partners, and University of North Texas counseling program offers the first accredited AAT training. Chandler further emphasized that there are a number of other colleges and universities and mental health programs teaching AAT. At the time of Chandler's publishing, there were no set standards of practice and guidelines. She remarked that a goal statement is needed and provided an example, "The professional AAT counselor is able to effectively incorporate an animal as a therapeutic change agent into the counseling process in a manner that protects the safety and welfare of both humans and animals" (Chandler, 2012a, p. 33). Additionally, once the goal statement is determined, the practice should list competencies of AAT in the learning context such as describing the history, AAT applications, training, list any credentialing, explain the benefits of AAT, integrating AAT, complying with professional standards, ethics, legal, teamwork in practice, and be a proactive advocate for AAT.

A local Pet Partners team offers classes, monthly meetings, and performance evaluations. The public is welcomed to their events. The Pet Partners program primarily has dogs in the group. A medium to larger dog would be beneficial at the proposed site. The Labrador retriever and the Golden retriever are breeds that are sturdy, calm and intelligent. They can usually handle stress and may be able to tolerate smaller children versus having a smaller fragile dog in the setting (Chandler, 2012). The author stated that most people like dogs and sometimes they are reminded of their own pets. Chandler

described an example of therapeutic role of AAT and cognitive behavioral counseling. The purpose is to build and establish trust, develop rapport, communicating thoughts, feelings, and emotions, improve insight, gain societal abilities, displaying effective behavior, and build self-confidence (Chandler, 2012, p. 145).

When documenting AAT, Chandler (2012) stated that the documentation should be thorough, provide relevant information about the therapy animal such as name, breed, credentials, specific decisions, interactions, interventions, and the outcomes of utilizing animals in therapy. Chandler also provided a psychosocial session form that can be utilized as an example to measure the outcomes of AAT. Chandler reported for billing purposes, document just as you would for other visits such as art or play therapy. Other resources reported to code as "interactive complexity" or "psychiatric other."

Findings

This researcher performed a Strength-Weaknesses-Opportunities-Threats (SWOT) analysis and a needs assessment at the proposed facility (see Appendix I, SWOT Analysis). The facility is a community-based, multi-specialty medical complex, which is located in Southern Mississippi. It is a not-for-profit organization with comprehensive healthcare services rendering care to the surrounding geographical area including behavioral health care for children and adolescents. Studies have shown that involving animal therapy in counseling and in in-patient settings have improved patient outcomes and experiences (Chandler, 2012; Fine, 2010, 2015; Goddard & Gilmer, 2015; Greenchimney.org, 2015; Mallon et al., 2010; Mano et al., 2011; Marcus et al., 2012, 2013; Parish-Plass, 2008; Pet Partners, 2015). The organization is a small behavioral health care center that has an outpatient unit with an inpatient unit for pediatric patients

not far from the clinic. The behavioral health care center is an extension of a larger hospital. The outpatient center is combined with adult mental health caregivers. The administration at the facility is generally supportive of the AAT idea.

Doctor of Nursing Practice

The Doctor of Nursing Practice (DNP) capstone project is a clinical practice scholarship that applies integration of educational based didactics, leadership skills, knowledge, and the utilization of nursing science and theory to address a clinical-based practice problem within the project officer's arena of expertise (White & Zaccagnini, 2014). The problem is analyzed then proposed by utilizing current evidence for an intervention to implement and evaluate the outcomes for effectiveness. This DNP project includes DNP scholarly concepts by examination of a practice-based problem of a deficit in knowledge of AAT, appraising evidence in literature review of AAT, and conducting the development and implementation process of the project. The project will analyze the findings and associated objectives of the clinical practice change initiative to incorporate AAT into psychiatric mental health APRNs clinical practice for children and adolescents.

Needs Assessment

This project's primary population focal point is for behavioral health needs of children and adolescents ages 4-16. The behavioral health care facility is located in a rural area that is equipped for both inpatient and outpatient mental health care needs for adults and pediatrics. As part of the needs assessment, this included *buy-ins* with *key stakeholders* for a clinical practice change initiative. The following was initiated as the needs assessment for the proposed clinical practice change initiative; therefore it is explained in terms of expected to happen.

Main components of the project will be to establish a rapport with APRNs as the key stakeholders, as well as provide effective communication, education, support, advocacy, and motivation to promote change for the initiative. Accepting the initiative by the APRNs to incorporate AAT as a potential intervention for children and adolescents is the expected outcome.

Key stakeholders include the hospital administrators, education department, infection control, quality control, nurse manager, and APRN manager. The facility has a contract with this project's author's educational institution. The facility will need a proposed agreement for a volunteer organization to incorporate AAT.

The cost of the proposed initiative will be minimal. Only key stakeholder's time for the practice change initiative will be needed to address policy and procedures. The proposed initiative will not cost the facility but that of a reputable volunteer organization that assumes all costs of human and pet partner training, education, fees, and insurance coverage. Space will be provided by the facility for the project's author to conduct the tests and educational component. Approval by resources was given to this project's author for policy, procedure, and other instruments to be utilized and provided as examples. Research information and educational didactics will be provided to the healthcare providers - APRNs. A survey will be conducted with a survey instrument adapted from a colleague's unpublished doctoral capstone project (see Appendix J, Permission for Adoption of a Survey Tool) to assess APRNs perception and usage of AAT as an intervention; and if they had the education component, would they use AAT in their practice (see Appendices, K, Animal Assisted Therapy Usage Survey Instrument Pretest; L, Animal Assisted Therapy Usage Survey Instrument Posttest). A clinical

practice guideline will be implemented as a source for the providers if they agree to utilize AAT in clinical practice.

Table 1

Cost Comparison Analysis

	With 3rd Party Source Start-up	**Without 3rd Party Source Start-up**	**With 3rd Party Source Monthly**	**Without 3 rd Party Source Monthly**	**Private Source Start-up**	**Private Source Monthly**
	Pet Partners C	**Pet Partners C**	**Pet Partners C**	**Pet Partners C**	**Non Pet Partners C**	**Non Pet Partners C**
Assets						
Trained & Certified Dog	$2,300.00	$0.00	$30.00	$0.00	$2,100.00	$25.00
Certified Pet Handler	$370.00	$0.00	$50.00	$0.00	$7,700.00	$25.00
Total Assets	$2,670.00	$0.00	$80.00	$0.00	$9,800.00	$50.00
Expenses						
Insurance	$0.00	$0.00	$0.00	$0.00	$170.00	$170.00
Travel & Meetings	$0.00	$200.00	$0.00	$50.00	$2,500.00	$50.00
Equipment	$0.00	$100.00	$0.00	$50.00	$500.00	$100.00
Supplies	$0.00	$100.00	$0.00	$50.00	$200.00	$50.00
Trained Dog	$0.00	$2,300.00	$0.00	$50.00	$2,100.00	$50.00
Handler	$0.00	$370.00	$0.00	$50.00	$7,700.00	$50.00
Total Expenses	$0.00	$3,070.00	$0.00	$250.00	$13,170.00	$470.00
Assets over Expenses	$2,670.00	($3,070.00)	$0.00	($250.00)	($3,370.00)	($420.00)
Affects APRNs		Liability		Liability	Liability	Liability

Note. The table provides cost comparison of costs for initiating AAT with and without a third party source, with certification and training requirements through Pet Partners (Pet Partners C) and without certification and training from a private source. The table reflects initial start-up costs and monthly estimates. Granted this is for those who actually participate in a certification and training of handler and pet partner. Without an organized group such as Pet Partners, and without proper training, increase liability potential, affects facility and provider costs, and decrease in patient care due to time off for personal training.

Problem Statement

There remains lack of knowledge and understanding within the healthcare sector in regards to other forms of therapeutic interventions and benefits of AAT. Executing

didactics of AAT provides measures to expand therapeutic tools for psychiatric mental health APRNs in clinical practice for improved mental health care in children and adolescents.

Purpose Statement

The purpose of this doctoral capstone project was to: (a) explore and assess the perceptions of APRN related to Animal Assistive Therapy (AAT) with traditional Western treatment, as compared to only traditional Western treatment, at one behavioral health care service center for the pediatric population, ages 4 to 16, and (b) to propose the acceptance of a practice change initiative.

Project Question

In one behavioral health care outpatient clinic for pediatric patients, ages 4 to 16 (P), does the evidence related to Animal Assisted Therapy (AAT) with traditional Western treatment (I) compared to only traditional Western treatment (C) change: (a) APRNs' perceptions of AAT (O) and (b) facilitate acceptance of a practice change initiative, over a 2-month period (T)? The project question was devised based on a format for doctoral capstone projects. The question relates to the Population (P), Intervention (I), Comparison (C), Outcome (O), and Time (T) known as the PICOT (Zaccagnini & White, 2013).

Theoretical Framework "Theoretical Foundations of Change

Diffusion of Innovation Theory"

Literature revealed theory as fundamental aspects in healthcare for structure, improved outcomes, and quality care (Alligood, 2010). Multiple barriers hinder the role in the implementation of AAT as an alternative therapeutic intervention in the behavioral

health care setting for pediatric patients. One of those hindering factors for most people is change. Research indicated the admiration of AAT is not "well-known" or understood by healthcare personnel, specifically APRNs. The American Nurses Association (2016) stated that APRNs are at the foreground of healthcare. It is this statement that is the focus to capture change within the APRN audience to incorporate AAT by utilizing a theoretical model as a guide.

Everett M. Rogers's (2003a) diffusion of innovation theory will guide this capstone project and support AAT as an intervention by APRNs. Rogers's diffusion of innovation theory provides a theoretical foundation that will help guide a proposal for a clinical practice change with APRNs. If diffusion occurs with the clinical setting, further action within the realm of the innovation process will need action. Rogers contended that communication about a new idea exemplifies diffusion. Rogers defined diffusion as, "…the process by which (1) an innovation (2) is communicated through certain channels (3) over time (4) among the members of a social system" (Rogers, 2003a, p. 11). Rogers (2003) disclosed *four main elements* composing the innovation process: *Innovation*, *communication channels*, *time,* and *social system*. Rogers stated all elements could be identifiable in diffusion studies, such as in an attempt to diffuse a change to include AAT in clinical practice.

The first element, innovation, comprises five characteristics of perception to explain different adoption or diffusion types among the party involved. Roger's (2003a) reported the diffusion process contains five fundamental elements which encompass *relative advantage*, *compatibility*, *complexity*, *trialability*, and *observability.* The first component relative advantage is the perception of whether the new idea of utilizing AAT

at a behavioral health center for pediatrics by APRNs is better than the previous clinical practice. This may be measured in cost, potential benefits, convenience, and more importantly, how advantageous the innovation will be for the organization. The APRN has the staging role as the change agent to destabilize the group by generating proper questioning to deter for hope and visions of something different that may be better for the group. If the innovation brings in revenue and can be accepted by the clinicians, the idea may then be adopted.

Compatibility defined by Rogers as the perceptive view of how the idea relates with the teams' values, historical clinical events, and adopter needs. The researcher has an important quest to explore the team values, past experiences, social norms, needs assessment, other issues, to promote the innovation of AAT in clinical practice change. Addressing clinicians' issues could either adopt or diffuse the idea.

Rogers (2003a) third characteristic is the perception of complexity for understanding and usage by the clinical practice team. Newer and simpler ideas, more than complex ideas, are adopted. Educating the involved party will more likely accept change and adopt new innovations. One important component in the process of behavioral change is the motivation to change. The process can be challenging and complex for the individual and the prescriber in order to achieve a positive expected outcome (Glanz, Burke, & Rimer, 2011).

Trialability defined by Rogers (2003a) revealed that this is the point where the innovation may be tried and altered as needed. There are limited trials and experiments that can potentiate the outcomes on the innovation. Applying a survey tool and providing effective communication to members of an organization places them in a mind frame of

the desired change, which is an important factor to consider when providing a new idea of the implementation of adding AAT in the clinical practice setting.

Finally, the last perceptive characteristic is observability. Rogers (2003a) defined as the gradation of the innovation results that are noticeable to others. The advantage of visibility creates information seeking, peer networking, discussions, and positive outcomes for change. Through networking, AAT has some noticeability within the community and has created positive awareness among the behavioral health center. Providing effective information to clinicians with authority could influence the role of adopting and supporting the innovation of clinical practice change.

Rogers (2003a) reported that past research studies have considered the five components of innovation as the most important attributes for adoption of an idea. Rogers articulated the relative importance of characteristics for the innovation process should have less complexity and more relative advantage, compatibility, trialability, and observability that can potentiate adoption outcomes at a faster rate.

Communication channels, the second diffusion stage described by Rogers (2003a), is the process by which a message is shared with others involved and how they are affected by the innovation. This stage is the means by which the idea is transpired through the parties involved for connecting the channels of innovation, knowledge or experience of the idea either from the individual or others, lack of knowledge or experience of the idea from one or others, and the system connecting the units. The system may include "mass media or interpersonal channels." Mass media reporting may be rapid to capture an audience adoption potential, but it is the interpersonal channels on a face-to-face basis that will be more effective in persuasion. Rogers also contended that

interpersonal channels are most effective when the persuader shares some important levels of similar links such as socioeconomic status, or other forms of demographics.

Time is the third stage of the diffusion process. Rogers (2003a) disclosed in the decision-making process, the time stage encompasses five components: *Knowledge, persuasion, decision, implementation,* and *confirmation*. The adoption of an idea depends on the organization's involvement with tolerance to change and adoption levels. Rogers clarified that some organizations may be categorized as innovators that are active with searching for innovative processes. Some adopters may be early or late while others may "lag" in the process. Rogers further explained that within the time element, the decision process is affected by the organizations norms and behavior. The researcher will use the five components in the AAT clinical practice change initiative by (a) obtaining knowledge about the idea, (b) persuading key stakeholders, (c) engaging key players in the AAT educational session, (d) providing key stakeholders with the tools for implementation of AAT in clinical practice, and (e) confirming the key stakeholders in their decision to either adopt or diffuse AAT either by discussion or peer review. Robinson (2009) reported the importance of capturing the early adopters' population to provide a stronger change agent value. The early adopters are the first to be team players. Face-to-face communication is a valuable asset as well as maintaining positive relationships, which are key aspects in this theory (Robinson, 2009).

The social element is the last of the four stages. Rogers (2003a) stated that a social system involves a common goal set forth by appropriate members of an entity to solve a problem. Rogers indicated the diffusion of innovation process key characteristic is within the social system. Attaining a social system that plays a strong role in decision-

making process and pose strong leadership can be advantageous for the AAT clinical practice change initiative. The social system may pose hindering factors, such as norms and attitudes towards innovation. The AAT incorporation with clinical practice may stimulate the process to change for future possibilities of improving a health care system.

Rogers's (2003b) innovation theory provides an exceptional foundation for a clinical practice change initiative among health care providers within behavioral health for children and adolescents. Grasping the full process of the four elements of diffusion will provide market value to facilitate change (Robinson, 2009). The elements provide an opportunity to guide the project's intent to enhance the behavioral health care practice by using the AAT as part of the APRNs intervention, which includes providing appropriate education and a surveillance tool that will facilitate the adoption of AAT.

CHAPTER II – REVIEW OF LITERATURE

This section provides a literature review of this project for proposing a clinical practice change initiative at a behavioral health center for children in the use of AAT (see Appendix L, Literature Review Table). Research has revealed AAT has become popular with use as a form of alternative intervention, but a gap still exists in knowledge perspective and utilization for healthcare providers in particular APRNs. This review section consists of the following topics: alternative therapy approach; evidenced based practice support; lack of quantitative research; and lack of knowledge, training, and policies. Database for the search of research articles and other evidentiary materials included CINAHL, MedLine, PubMed, PsychINFO, Psychology and Behavioral Sciences, Ovid, EBSCOhost, Google Search Engine and from The University of Southern Mississippi's library.

Alternative Therapy Approach

AAT programs are becoming popular across the nation (Friesen, 2009). For over thirty years, research has shown there are numerous studies about AAT and the therapeutic effects among children from physiological, to social and emotional needs. This exploratory case study provides and in-depth insight in that characterizes benefits of AAT for children at school. A well-trained animal helps in a goal-directed intervention in an educational setting. Some of the variables noted were found to increase attention span, cooperation, and responsiveness. Additionally, the author reported that the children were more open and desired social interaction (Friesen, 2009).

Friesen (2009) provided an evaluation, which addressed concerns about the use of AAT in a therapeutic environment. The author revealed some considerations that

addressed safety, *well-being* of everyone, and cultural sensitivity. In an effort to promote cleanliness, the animal is bathed and groomed regularly before each session, instill hand washing or hand sanitizing of the children's' hands before and after touching the animal. Friesen (2009) reported that by selecting a non-shedding animal and applying an anti-allergen powder would help reduce dander, therefore addressing the concern with allergens. In some cultures, a dog is considered unclean and therefore, all handlers are educated to respect to their needs. The author reported that all parties would adhere to informed consents (Friesen, 2009). Another major concern reported was the animal's safety. In this study, the author revealed that the animals are closely monitored for stress by their handlers and are supervised at all times.

Chandler (2012a, 2012c) described several positive ways how pets in therapy can change the course of situations. Beneficial effects for the clients include: increased motivation to attend sessions and to participate, redirect of focus as in pain management, foster healing, comfort, and acceptance, feel pleasure, develop trust, and implement positive behaviors, actions, and goals. Additionally, the client may feel less stressed and therapeutically may benefit from a quicker and better recovery.

At the time of publishing, Chandler (2012b) provided a list of DSM IV diagnostics: *generalized anxiety disorder*, *attention deficit hyperactivity disorder*, *bipolar disorder*, *borderline personality disorder*, *conduct disorder*, *major depressive disorder*, *oppositional defiant disorder*, and *posttraumatic stress disorder* for which AAT might be able to be effectual in clinical use. Twelve beneficial components were revealed in Parish-Plass (2008) study for abused and neglected children that include the following:

1) Enabling a social connection;

2) Sense of "normalcy," safety, and friendliness of therapy setting;

3) Acceptance from a social being;

4) Reality at a safe psychological distance;

5) Self-esteem from positive interactions with the therapy animal;

6) The animal serving as a positively reinforcing attachment figure;

7) Development of more adaptive representations and strategies;

8) Empathy for the therapy animal;

9) Fill a need for control of self, others, and the situation;

10) Therapeutic touch;

11) Reduce regression;

12) Comfort from previous separation, loss, and bereavement (Chandler, 2012d, p. 246).

In a quantitative and qualitative study, children with *emotional* problems were studied by utilizing *EFP/learning* as a "therapeutic" process to help children ages 10 to13 years of age (Ewing, MacDonald, Taylor, & Bowers, 2007). The authors predicted that this population would benefit from the use of EFP/learning for school by increasing their overall personal scale of self-confidence and personal worth. Another prediction as a

result of the program would cause a decrease in depression and loneliness. This "experiential methodology" involved full participation by the participating participants. The youths were from an alternative school with severe behavioral and emotional disorders, had poor familial and low socioeconomic background. Students were based on a referral basis by a special education teacher and placed into groups that had similar ages and IQs to facilitate bonding. The study involved 28 participants that were volunteers. A *pretest* and *posttest* was used with five elements that measured quantitative data of self-perception, empathy, locus of control, depression, and loneliness to complete the study. Each test was analyzed with paired t-tests and found to have not significant differences between the pretest and posttest. Additionally, the authors found surprising results that did not concur with their predictions. The authors proposed that existing works exhibited auspicious results of increasing self-esteem and self-worth from previous equine therapy studies, but their finding may be that their study may be attributed to the severity of the behavioral and more severe disorders. Ewing et al. (2007) found that their qualitative outcomes showed more promising findings of positive vicissitudes in conduct and social acceptance through observation and interviews of all the parties involved.

Historical Perspective

Florence Nightingale may have been the fore founder of AAT with her insight and innovative ideas. In her book *Notes on Nursing*, Nightingale (1860) wrote, "A small pet animal is often an excellent companion for the sick…" (p. 103). Proactive for improving health, Nightingale described how a patient should be encouraged to participate in animal caring activities. Nightingale's inspiring recognition for animal therapy has developed through the years.

Latham (2011) and Coren (2013) emphasized how Sigmund Freud (1930s) and Boris Levinson (1960s) became legacies by their studies, theories, and early known developers of AAT. Literature has revealed translation of Sigmund Freud's work about his canine partners and acquaintances (Dufresne, 2003; Genosko, 1994; Jones, 1957). His first encounter with human-animal bond, which was with a dog he gave to his daughter named Wolf. It was not until his later years in life that he viewed dogs as having positive effects on patients and had true love for dogs. Princess Marie Bonaparte, a friend, introduced Freud to the canine breed chow. Later, a close family friend gave him a chow as a gift. The story expanded with Princess Marie had a chow named Teaupi "Topsy," and that chow had cancer of mouth in the area of the right lower jaw, just as did Freud. He then had love and fondness for chows and would often be seen with his dog not far from his side and even during therapy sessions. Freud began noticing events during sessions when his chow Jofi was present with him. Through various resources, recent translated work by Freud in journals, and Freud's documented direct observation of Jofi's facilitation of the patient's sense of acceptance and safety that lead to improved patient outcomes (Dufresne, 2003; Grinker, 1940, 2001). One of Freud's patients, Hilda Doolittle, disclosed she felt offended in the way Freud seemed more interested in his own dog more than her story. According to his translated works, Freud would often jokingly remark "psychoanalytic dogs" during sessions while observing Jofi's actions (Dufresne, 2003).

Levinson later validated Freud's work and observation when by accident, Levinson discovered positive beneficial outcomes by having a dog present in therapy sessions. One particular case, Levinson (1969) reported improved outcomes when his

dog Jingles helped develops a link in communication between the therapist and child patient. Levinson's work was not initially accepted and was actually not well receptive by his colleagues, who did not take this matter serious. His work was later validated by Freud's work from his journals (Coren, 2010, 2013; Levinson, 1969, 1972, 1997).

Evidenced Based Practice Support

AAT was further examined and explored as a possible augment to help with the Healthy People 2010 goals. As previously mentioned, DeCourcey, Russell, and Keister (2010) study revealed well designed safe programs along with current evidenced based practice literature as it is related to AAT. As previously mentioned, AAT, as has specific goals, requires training and involves third party source, not personal pets. DeCourcey et al. (2010) stated there are important items at stake for an intervention: detailed objectives with specific goals for each individual, scheduled intervention, and only specific animals that meet training requirements are allowed (Cowell, 2013).

To support and examine quantitative data, a study of pediatrics at a hospital tested five constituents: Child report of their mood, parent report of mood, videotaped and observation of affect, saliva cortisol levels tested for stress, and heart rate and blood pressure were measured for physiological aspects to support AAT hypothesis (Cole, Gawlinski, Steers, & Kotlerman, 2007; Cowell, 2013). Cole et al. (2007) study measured cardiopulmonary function and pressures in a critical care setting on heart failure patients. Three separate twelve-minute interventions were used: AAT method, a "volunteer" and self-relaxation technique. Patient anxiety and neurohormone levels were examined and reflected remarkable discoveries. The study showed that the AAT group displayed a decrease in physiological symptoms such as, decreased blood pressure, decreased

epinephrine levels, and decreased norepinephrine levels during the intervention as compared to the other two forms treatment, the volunteer and self-relaxation technique showed the opposite data (Cole et al., 2007).

AAT provides a therapeutic approach and is an inexpensive method of care for health care professional with the treatment patients. As discussed previously, research supports findings that AAT provides beneficial outcomes for people who may suffer from emotional and or physiological problems (Cowell, 2013; DeCourcey et al., 2010). Moreover, there are other forms of AAT such as hippotherapy or equine therapy that involves further complexities in involvement with time, facilities, research, understanding, support, and training.

Cost Perspective

Pally and colleagues (2010) summarized several main reasons for incorporating AAT into clinical practice. The rising healthcare costs tend to reduce people's accessibility AAT could reduce costs, provide savings for organizations, and meet patient needs. For instance, if AAT positively improved patient wellness and, as an element of rehabilitation, would increase physical activity, markedly improve the patient-provider fiduciary relationship, and strengthen the patient commitment to treatment regimen. These elements could ultimately lessen the amount of time spent in hospitals, thus decrease therapeutic times to save money and costs. AAT potentially could become a reimbursable item by third party payers in healthcare costs. Chandler (C. C. personal communication, July 21, 2014) reported that the animal is an adjunct to therapeutic services, therefore the provider bills for treatment provided (see Appendix M, Chandler email). One resource indicted billing as other psychiatric services or procedures

(American Academy of Professional Coders [AAPC], 2017). While in another resource reported although AAT does not have a distinct billable code, AAT is billable when considered a form of treatment modality incorporated into individualized plan provided with goals, interventions, and measurable expected outcomes. A third party credentialed member is a billable source for AAT, whereas if AAA were categorized as routine care is not billable. The same resource indicated insurance companies reimbursed a nursing home that billed AAT as individualized plans with improved outcomes from the interventions provided. Like other forms of therapeutic interventions, it is highly imperative for the credentialed source to provide thorough documentation of the plan of care with outcomes, evolvement, and goals (Simple CEUs, 2017).

Lack of Quantitative Research

Qualitative research has been the primary methodology used for AAT and ET (Ewing et al., 2007). However, research in exploring how AAT and ET programs are providing insight as to how these alternative measures provide goal-directed interaction display and integral part of positive beneficial modalities for children such as speech, language, motor function, and cardio-respiratory function (Friesen, 2009).

The Institutes of Medicine (IOM, 2012) reported, supported, and recommended the use of other forms of treatment for PTSD in military personnel provided it is backed by solid evidence of research. They reported they did not support other forms of therapy, such as animal-assisted therapy and yoga due to lack of evidence in its efficiency.

Lack of Knowledge, Training, and Policies

An Australian dog visitation team at a healthcare facility found that non-healthcare personnel and non-clinical health staff were more inclined to accept the

visitations than were doctors and nurses (Berget et al., 2008). Some healthcare workers were not receptive to the idea of change and were opposed by the idea of introducing animals in the healthcare setting (Williams & Jenkins, 2008). The healthcare staff, in particular providers, was disturbed about hospital procedures and protocols were not established and this would address safety and other healthcare issues (Berget et al., 2008; Cowell, 2013; Williams & Jenkins, 2008).

In a mixed methods approach of a case study, Risley-Curtis (2010) researched social workers utilization of AAT. This study revealed alarming potential liability infrastructure within the AAT realm. Some practitioners were performing AAT in their practice without proper education and training, while some had some knowledge of AAT and others did not. As previously mentioned, this study was utilized as a guide to support the need for knowledge and treatment assessment, and more importantly professional *education* and *training* related to the "human-animal companion bond" (Cowell, 2013; Risley-Curtis, 2010). The authors reported the content validity was established by a review of literature and two "human-animal bond" experts. Furthermore, Risley-Curtiss (2010) stated that practitioners should become aware of their resources provided by research for education and training. The findings revealed that education and training are not sufficient.

Support and education are needed in order to convince providers to incorporate AAT in clinical practice (Palley et al., 2010). Research has indicated physicians have not advocated for AAT as much. Researcher further explained that prescribing physicians should know what patient populations and what diseases are best suited for AAT, what animal species is used, and what frequency and duration for treatment are needed.

This section provided material that has been utilized for significant data for AAT instruction necessity, which involves proper AAT program training process for APRNs. Research studies are still warranted for future practices of AAT. Other studies and related articles were provided and necessitate the importance of future research projects.

Doctor of Nursing Practice Essentials

A fundamental element of a doctoral prepared capstone project incorporates the *doctor of nursing practice essentials* (see Appendix N, DNP Essentials) and *advanced practice* (Chism, 2013). This will be demonstrated by exploring change in clinical practice for APRNs to incorporate another form of intervention and enhance therapeutic milieu for improved outcomes of children and adolescents. The project will provide testing, educational component, post testing, and evaluation of the initiative for change. This project was constructed off of research, theory, and evidence-based practice to formulate innovation, organization, leadership, mentoring, advocating, utilizing community resources, and Interprofessional collaboration for improved health care outcomes. This project explored needs assessment for change initiative and needs of children and adolescents. Testing, educating, and the evaluation component provide the foundation to enhance health care and improve outcomes. A third party resource within a reputable volunteer group provides cost savings for the facility and provides community outreach. The project sets an opportunity for further research and evidence-based practice based on the initiative to change. The project primes the way for skills necessary for DNP role development in leadership, innovation, quality improvement, and most importantly improved patient outcomes and quality care.

Table 2

Project Objectives

Project Objectives	Evaluation and Outcomes
1. Enhance knowledge of AAT program process and guideline information for APRNs.	Increase awareness through testing questionnaire.
2. Promote alternative forms of therapeutic interventions for pediatric population.	APRNs will consider adding the initiative as a form of therapeutic intervention children and adolescents.
3. Promote Interprofessional collaboration and community resources.	APRNs will consider AAT volunteer organizations.

Note. DNP Essentials

CHAPTER III - METHODOLOGY

The purpose of this doctoral capstone project was to (a) explore and assess the perceptions of APRNs related to AAT with traditional Western treatment, as compared to only traditional Western treatment, at a behavioral health care center that provides treatment to the pediatric population, and (b) to propose the acceptance of a practice change initiative. The goal was to provide the foundational knowledge to implement a clinical practice change initiative for APRNs to incorporate AAT as an adjunct in clinical practice for enhanced care within the pediatric population. The participation aspects of the projected consisted only for APRNs at a small behavioral health care setting and there were no age limits required. Quantitative data analysis was performed at the end of the project implementation to assess the goal of acceptance for the clinical practice change initiative. The diffusion of innovation model was utilized as a guide to assist with the process of change within a channeling communication and social system to capture the APRNs support. APRNs are at the forefront of healthcare and it is vital in the diffusion process for strong allies to promote an innovative idea of enhancing therapeutic outcomes for the pediatric population. A letter of approval was obtained from the behavioral health care center (see Appendix O, Letter to USM). The Institutional Review Board (IRB) at The University of Southern Mississippi was approved before this capstone project was implemented (see Appendix P, IRB). This capstone project did not have any camera or recordings, nor did it have any hidden cameras or videos and did not contain sensitive information. Furthermore, there was no deceitfulness from this DNP student. All project data were shredded and destroyed after the capstone project. This DNP reviewer has maintained confidentiality at all times. This project did not have incentives only a

luncheon briefing. This next section includes the description of project, data sources, epidemiological methods, identified desired outcomes, community collaborations, application to clinical setting-program design, and more exploration on the use of AAT.

Description of Project

The purpose of this doctoral capstone project was to (a) explore and assess the perceptions of APRN related to Animal Assistive Therapy (AAT) with traditional Western treatment, as compared to only traditional Western treatment, at one behavioral health care service center for the pediatric population, ages 5 to 16, and then (b) to propose the acceptance of a practice change initiative. To accomplish this two-fold purpose, the researcher proposed to conduct an evaluation, provide an educational opportunity, and develop an implementation of a clinical practice change initiative in the use of AAT.

The first segment included the introduction of the project: the induction and signature of the IRB consent form obtained followed by the pretest. The pretest consisted of a question of APRN role status, 6 (*yes* or *no*) questions, and 20 questions to measure (*importance*, *barriers*, and *agree* or *disagree* statements) about the use or knowledge of AAT.

The second segment consisted of implementing the educational component of AAT. A description of the theoretical component was discussed, followed by the definition and review of the literature was examined to provide information about beneficial outcomes with the use of AAT. A question – answer discussion was provided after the presentation, followed by the posttest and view of proposal acceptance. The posttest was the same tool provided for the pretest. All participants were informed about

this researcher's forms, tools, and documents are available for use or future use for the utilization of AAT in clinical practice, as well as being a consultant, mentor, and/or liaison for their healthcare group.

Data Sources

Data resources included current peer-reviewed articles published in English and with available abstracts, and some information came from textbooks. Other contacts for this project included: one volunteer organization in south Mississippi's coast, telephone and email contacts to agencies in Colorado and New York, and other healthcare agencies in the military and in the local south Mississippi area that utilize canine therapy. Subject headings for the data searches included: animal-assisted therapy/intervention/billing/cost, pet therapy, animal therapy, animal-assisted therapy and children, pet-therapy and children, canine therapy/intervention, and equine therapy/intervention.

Design

Rogers' (2003a) diffusion of innovation model will serve as a guide to change and implement reinforcement through communication channels by way of key important social network members at a behavioral healthcare facility. The development of a survey questionnaire tool was adopted and modified for assessment of APRNs knowledge and perception to incorporate AAT as an intervention for children, ages 5 to 16, with behavioral health problems. This descriptive quantitative exploratory survey method of research was primarily focused on APRNs as a focal group. The AAT survey instrument in a questionnaire format was used for data collection and research development of the evidence-based intervention. The goal of the intervention and instrument was not only to

obtain information on the educational need for the utilization of AAT in clinical practice and to establish advocacy for AAT among the team.

Setting

The location of this doctoral capstone project was facilitated at a small community setting, in a behavioral healthcare center located in southern Mississippi. To accomplish this project, administrative personnel and staff members gave prior approval and, subsequently, will facilitate coordination of the project.

Population and Sample

The convenience sample for this project included six participating behavioral healthcare APRNs, who are staff employees at the behavioral healthcare outpatient setting and who provide care to children and adolescents. Individuals not meeting the project's criteria were excluded.

Purpose

The project goal of this doctoral capstone project was to weigh the elements of AAT appraisal for knowledge and perception among APRNs. And hopefully, facilitate a clinical practice change initiative to incorporate AAT in clinical practice with children and adolescents. This capstone project will serve as a guide to initiate a therapeutic adjunct at the behavioral healthcare facility.

Procedure

A needs assessment was conducted at the behavioral health care facility that provides treatment for children and adolescents, ages 5 to 16. This assessment was integrated as part of the data to propose an AAT clinical practice change initiative implementation. A psychiatric mental health nurse practitioner specializing in children

and adolescents was contacted for initial approval as a preceptor and spokesperson for this researcher to finish up this capstone project at her current facility in south central Mississippi. The education department and the nurse practitioner director were consulted for approval. The USM approval letter was coordinated with the preceptor along with frequent communication for facilitation of the project. A luncheon in-service was conducted at the behavioral healthcare outpatient department with the APRNs. Initially, the project monitor explained the capstone project, the consent forms were explained and the participants were informed this was a volunteer basis.

The second step included the administration of a survey questionnaire to the APRNs as the pretest to determine the need for additional education on AAT and the proposal of a clinical practice change initiative. The third step in this process included a power point presentation to discuss AAT, hence providing information as the educational intervention. The same survey tool was repeated as the fourth step to determine the APRNs team support of the proposed proposal for the clinical practice change initiative in support of AAT incorporation. The proposed goal was to focus on a new enhanced perspective for APRNs to determine a desired need for AAT in clinical practice when working with children and adolescents with behavioral health problems. The proposed intervention of adding AAT to their clinical practice now or future use, this researcher vows to act as liaison in development and implementation of creating a policy guideline for their behavioral health care center.

Data Collection

There was no identifying data on the data collection tools. The survey questionnaire in pretest and posttest was used for data information. Each participant

received a case number reflected on the tool. Confidentiality was maintained at all times, reflecting participant case numbering. However, 2 participants opted to utilize their email to send their data due to unforeseen events and could not make the presentation. All participants were informed and assured that the data will be destroyed post data analysis computation.

After all survey tools were collected, data entry was entered in SPSS at the USM campus library. The goal was to achieve quantitative data for positive perceptions, learning base knowledge views, and increased impact after the education was given on AAT. The goal was to increase APRNs awareness and knowledge of AAT and to persuade clinical practice change initiative at the behavioral health care facility.

CHAPTER IV – ANALYSIS OF DATA

The purpose of this doctoral capstone project was to propose a clinical practice change initiative to incorporate AAT as a therapeutic adjunct in care for children and adolescents to APRNs at a behavioral health care center. A survey in questionnaire format was presented as a pretest prior to an educational component about AAT for its use and benefits, followed by the posttest. Six (N=6) APRNs volunteered to participate in this capstone project. Two APRNs elected to participate via email, and 4 APRNs volunteered to participate in a luncheon meeting during their lunch break. Data Collection and data analysis was collected from the pretest and posttest questionnaires to determine if there was a positive impact, knowledge, perception, capabilities, barriers, level of importance, and if they agree or disagree for AAT on the APRNs for a clinical practice change initiative at their facility. A Likert-type scale was provided to determine the scores for comparison. SPSS data system was used to capture analysis.

Demographics of the Samples

The only demographic data set for this project was for APRNs that work at a behavioral health center. All 6 participants were APRNs who administer care to children and adolescents at a behavioral health care center.

Analysis of the Data

The first six questions were coded as 1 (*yes*) and 2 (*no*). Questions 7 through 26 on the survey questionnaire were 4-point Likert-Scale format. Question 7 was ranked on a scale from 1 (*very important*), 2 (*important*), 3 (*fairly important*), and 4 (*not important*). Questions 8 through 13 were coded as (*barriers*) from 1 (*no barrier*) to 4 (*severe barrier*). Questions 14 through 26 were ranked 1(*strongly agree*) to 4 (*strongly*

disagree). Due to the various nature of the questionnaire format, each question was analyzed individually to reflect positive or negative differences among the APRNs scores for descriptive analysis. The data was further gauged in five categorical areas: assessment and evaluation; policies and procedures; APRNs knowledge – barriers, agree or disagree; utilization – barriers, agree or disagree; and knowledge and usage.

Results

APRNs Assessment and Evaluation

All six APRNs revealed they "care for children and adolescents" in question one. One APRN reported not "knowing about AAT" in question two, while 83.3 % reported they "know about AAT" in the pretest. Question two reflected positive impact post-AAT education for all six APRNs revealing 100% "knowledge about AAT." Four (66.7%) APRNs revealed they "know what AAT can be used for" in question three in the pretest. Question three revealed an increase from 66.7 % to 83.3% for the assessment of APRNs "knowledge in AAT use." Question seven, "role importance" to use AAT as an adjunct in therapy revealed 33.3% respectively for (*important, fairly important,* and *not important*) for the pretest. In the posttest for question seven, revealed an increase of importance with the APRNs "role" in the use of AAT 66.7% (*important*), while 2 participants remained at 33.3% as (*not important*). The following tables 2 through 8 provide questions 1 through 26 of the tool utilized for this project. This tool's questionnaire format were obtained, adapted and modified from Hovanec, A. (2013) a DNP unpublished thesis questionnaire's tool, which she had granted permission to utilize as needed.

Table 3

APRNs Assessment and Evaluation

		Pretest		Posttest	
		Frequency	**Percent**	**Frequency**	**Percent**
Question 1	Yes	6	100.0	6	100.0
	No	0	0	0	
	Total	6	100.0	6	100.0
Question 2	Yes	5	83.3	6	100.0
	No	1	16.7	0	0
	Total	6	100.0	6	100.0
Question 3	Yes	4	66.7	5	83.3
	No	2	33.3	1	16.7
	Total	6	100.0	6	100.0
Question 7	Important	2	33.3	4	66.7
	Fairly Important	2	33.3		
	Not Important	2	33.3	2	33.3
	Total	6	100.0	6	100.0

Policies and Procedures

For the pretest and posttest question "Does your current facility define policies and procedures for AAT?" one APRN (16.7%), reported there were policies and procedures in their facility, while the remaining five APRNs (83.3%) reported there were none. All 6 APRNs reported the same answers as the pretest, 83.3% reported (*no*) there was no policies and procedures for AAT while the remaining reported there was. For this question, the educational component did not make a difference with the APRNs scoring sheet. All six APRNs (100%) answered (*yes*) to question five pretest and posttest – no change, referring to "AAT as a billable item." All six APRNs (100%) answered (*yes*) to AAT as a "billable code - interactive complexity" in question six in the pretest except the posttest reflected one response 16.7% as (*no*). Question six reflected a small discrepancy with the posttest questionnaire for coding. The educational component provided billable codes that can be used for AAT billing purposes. Question twenty referring to "need for

standardized AAT as adjunct in treatment for children and adolescents" scores showed 66.7% APRNs (*agreed*), 16.7% (*disagree*), and 16.7% (*strongly disagree*) in the pretest. Question twenty posttest results indicated the educational component made some difference in the APRNs "knowledge for standardized AAT in treatment for children and adolescents." The marked change and increase in views post training showed the APRNs reported 16.7% (*strongly agree*), 50.0% (*agree*), while 33.3% (*disagree*).

Table 4

Policies and Procedures

		Pretest		Posttest	
		Frequency	**Percent**	**Frequency**	**Percent**
Question 4	Yes	1	16.7	1	16.7
	No	5	83.3	5	83.3
	Total	6	100.0	6	100.0
Question 5	Yes	6	100.0	6	100.0
	No	0	0	0	0
	Total	6	100.0	6	100.0
Question 7	Yes	6	100.0	5	83.3
	No	0	0	1	16.7
	Total	6	100.0	6s	100.0
Question 20	Strongly Agree			1	16.7
	Agree	4	66.7	3	50.0
	Disagree	1	16.7	2	33.3
	Strongly Disagree	1	16.7		
	Total	6	100.0	6	100.0

Knowledge Based Barriers

The majority of the APRNs reported 83.3% (*moderate barrier*) for "insufficient time for knowledge on screening tools," while the remainder 16.7% reported (*severe barrier*) for pretest scores. The APRNs changed their view following the educational component of AAT which changed from (*severe*) to (*moderate barrier*) at 66.7% and (*mild barrier*) 33.3%. The knowledge based questionnaire revealed in question ten "knowledge on AAT benefits" in the pretest were 66.7% as (*mild barrier*), 16.7%

(*moderate barrier*), and 16.7% (*severe barrier*). There was a difference for question ten in the APRNs report of "benefits of AAT" revealing zero for (*severe barrier*), 16.7% (*no barrier*), 66.7% (*mild barrier*), and 16.7 (*moderate barrier*) indicating positive impact post educational component on AAT. The APRNs pretest scores for question eleven "adequate resources" revealed 50.0% respectively for (*moderate*) and (*severe barriers*). The APRNs reported slight differences in posttest scores as compared to the pretest scores with AATs "resources and services" question eleven post AAT education which reflected a majority as (*moderate barrier*) 66.7% and 33.3% (*severe barrier*) making some difference.

Table 5

Barriers for Knowledge Base

		Pretest		**Posttest**	
		Frequency	**Percent**	**Frequency**	**Percent**
Question 8	No Barrier				
	Mild Barrier			2	33.3
	Moderate Barrier	5	83.3	4	66.7
	Severe Barrier	1	16.7		
	Total	6	100.0	6	100.0
Question 10	No Barrier			1	16.7
	Mild Barrier	4	66.7	4	66.7
	Moderate Barrier	1	16.7	1	16.7
	Severe Barrier				
	Total	6	100.0	6	100.0
Question 11	No Barrier				
	Mild Barrier				
	Moderate Barrier	3	50.0	4	66.7
	Severe Barrier	3	50.0	2	33.3
	Total	6	100.0	6	100.0

Knowledge Based either Agree or Disagree

The APRNs (83.3%) reported they (*agree*) that there are "benefits to using structured AAT in clinical setting" and 16.7% (*strongly agree*) for the pretest question fifteen. There was a marked difference in the APRNs view on "benefits to using

structured AAT" in practice posttest. The APRNs reported 50.0% (*strongly agree*) and 50.0% (*agree*) indicating a positive impact of AAT training. The APRNs pretest scores for question seventeen revealed 83.3% (*disagree*) with "having adequate knowledge" regarding AAT, and 16.7% (*strongly disagreed*) on the subject. The APRNs perception of "having adequate knowledge" regarding AAT revealed an impact post AAT education as compared to the pretest scores in question seventeen revealing 33.3% (*agree*), while 50.0% (*disagree*), and 16.7% remained (*strongly disagree*). For question eighteen, the pretest scores indicated that 83.3% of the APRNs (*disagree*) they have "adequate knowledge regarding AAT clinical practice guideline," while 16.7% reported (*strongly disagree*). A majority of the APRNs (66.7%) reported they (*disagree*) for question eighteen. However, there was one positive stance which indicated 16.7% (*agree*) which reflected a positive impact post AAT training, while one remained at 16.7% (*strongly disagree*) on the posttest. Question nineteen pretest scores displayed most APRNs reported 66.7% (*strongly disagree*), 16.7% (*disagree*) and 16.7% (*agree*) as to having had "nursing school training on AAT." There was no impact or change for question nineteen posttest values referring to "receiving adequate training during nursing school" indicating no change in value with AAT education.

Table 6

Agree or Disagree for Knowledge Base

		Pretest		Posttest	
		Frequency	**Percent**	**Frequency**	**Percent**
Question 15	Strongly Agree	1	16.7	3	50.0
	Agree	5	83.3	3	50.0
	Disagree				
	Strongly Disagree				
	Total	6	100.0	6	100.0
Question 17	Strongly Agree				

	Agree			2	33.3
	Disagree	5	83.3	3	50.0
	Strongly Disagree	1	16.7	1	16.7
	Total	6	100.0	6	100.0
Question 18	Strongly Agree				
	Agree			1	16.7
	Disagree	5	83.3	4	66.7
	Strongly Disagree	1	16.7	1	16.7
	Total	6	100.0	6	100.0
Question 19	Strongly Agree				
	Agree	1	16.7	1	16.7
	Disagree	1	16.7	1	16.7
	Strongly Disagree	4	66.7	4	66.7
	Total	6	100.0	6	100.0

Barriers for Utilization

Pretest scores for question nine indicated there is a "barrier for knowledge in use of AAT." The APRNs reported 16.7% (*mild barrier*), 66.7% (*moderate barrier*), and 16.7% (*severe barrier*). There was improvement for question nine after the AAT training and the APRNs reported 16.7% (*no barrier*), 33.3% (*mild barrier*), and 50.0% (*moderate barrier*) indicating positive impact. The training on "management of AAT" for question twelve results was 66.7% (*moderate barrier*) and 33.3% (*severe barrier*) prior to AAT training. The APRNs posttest results for question twelve following the educational component suggested slight improvement with 83.3% as (*moderate barrier*) and 16.7% (*severe barrier*). All six APRNs (100%) reported (*moderate barrier*) for question thirteen "peer participation" in the pretest scores. The AAT educational constituent revealed a positive impact for the APRNs with their scores for "participation of peers" with 16.7% (*no barrier*), and 83.3% (*mild barrier*) as compared to the pretest.

Table 7

Barriers for Utilization

		Pretest		Posttest	
		Frequency	**Percent**	**Frequency**	**Percent**
Question 9	No Barrier			1	16.7
	Mild Barrier	1	16.7	2	33.3
	Moderate Barrier	4	66.7	3	50.0
	Severe Barrier	1	16.7		
	Total	6	100.0	6	100.0
Question 12	No Barrier				
	Mild Barrier				
	Moderate Barrier	4	66.7	583.3	
	Severe Barrier	2	33.3	1	16.7
	Total	6	100.0	6	100.0
Question 13	No Barrier			1	16.7
	Mild Barrier			5	83.3
	Moderate Barrier	6	100.0		
	Severe Barrier				
	Total	6	100.0	6	100.0

Agree or Disagree for Utilization

Most of the APRNs (66.7%) agreed on "utilizing standardized approach of AAT would improve care and health outcomes" and 33.3% reported (*strongly agree*) in question fourteen's pretest. There was no change in the APRNs response for question fourteen in the posttest outcome. Most of the APRNs 66.7% (*agree*) that "APRNs have unique skills to facilitate the implementation of a standardized clinical practice guideline", while the remainder 16.7% (*strongly agree*) and 16.7% (*disagree*) with question sixteen. Question sixteen revealed no change in view for the APRNs perception of holding "unique skills that may facilitate the implementation of a standardized clinical practice guideline" score posttest (*strongly agree*) 16.7%, (*agree*) 66.7%, and (*disagree*) 16.7%. This may have indicated there was no significant impact post-AAT education, however, most agreed and did not change their perception. The APRNs pretest responses were 50.0% (*agree*), 33.3% (*disagree*), and 16.7% (*strongly disagree*) to question twenty-one pertaining to "incorporating standardized AAT into practice." The APRNs

responses to question twenty-one revealed an increase and impact post AAT training with 16.7% (*strongly agree*), 50.0% (*agree*), and 33.3% (*disagree*). The pretest data reflected the APRNs response to questions twenty-two, 50.0% (*agree*) they "could initiate an AAT program at their facility", while 33.3% (*disagree*), and 16.7% (*strongly disagree*). Posttest question twenty-two showed APRNs perception changed after the AAT education indicating 33.3% (agree) to "initiate standardized AAT in their facility," while 66.7% (*disagree*). This scoring may have revealed the perception of AAT which may have been assumed to be easier than what is involved for starting a program thus having a different view post-AAT education. The pretest question twenty-three pertains to "incremental implementation of AAT improving participation" scored 83.3% of the APRNs (*agree*), while 16.7% (*disagree*). The posttest scores for question twenty-three showed a change in perception as compared to pretest scores. The APRNs (*agree*) 66.7% while the remainder 33.3% (*disagree*) which increased changing one APRNs view post-AAT education. This score may have revealed the perception of starting an AAT may be assumed to be easier than previously thought and therefore a different view post-AAT education. Pretest question twenty-four showed 100% of the APRNs view of "incremental implementation of AAT would improve program success." However, question twenty-four posttest data showed a negative difference following the AAT training. The APRNs reported 83.3% (*agree*) and 16.7% (*disagree*). Again, this score may have indicated the perception of AAT may be assumed to be easier than what is entailed for starting a program thus having a difference of opinion post AAT education.

Table 8

Utilization Based Agree or Disagree

		Pretest		Posttest	
		Frequency	**Percent**	**Frequency**	**Percent**
Question 14	Strongly Agree	2	33.3	2	33.3
	Agree	4	66.7	4	66.7
	Disagree				
	Strongly Disagree				
	Total	6	100.0	6	100.0
Question 16	Strongly Agree	1	16.7	1	16.7
	Agree	4	66.7	4	66.7
	Disagree	1	16.7	1	16.7
	Strongly Disagree			6	100.0
	Total	6	100.0		
Question 21	Strongly Agree			1	16.7
	Agree	3	50.0	3	50.0
	Disagree	2	33.3	2	33.3
	Strongly Disagree	1	16.7		
	Total	6	100.0	6	100.0
Question 22	Strongly Agree				
	Agree	3	50.0	2	33.3
	Disagree	2	33.3	4	66.7
	Strongly Disagree	1	16.7		
	Total	6	100.0	6	100.0
Question 23	Strongly Agree				
	Agree	5	83.3	4	66.7
	Disagree	1	16.7	2	33.3
	Strongly Disagree				
	Total	6	100.0	6	100.0
Question 24	Strongly Agree				
	Agree	6	100.0	5	83.3
	Disagree			1	16.7
	Strongly Disagree				
	Total	6	100.0	6	100.0

Knowledge and Usage

This particular section is interesting as compared to the previous section. The pretest and posttest scores indicated all six APRNs (100%) responded to question twenty-five as (*agree*) for "learning about other AAT programs would encourage them to engage in practice of AAT." This section did not show a marginal difference but maintained agreeable to engage with AAT in practice. Question twenty-six pretest score showed the

APRNs response to “learning other AAT would encourage them to initiate a program” scores were 66.7% (*agree*) while 33.3% (*disagree*). In the posttest data, question twenty-six revealed a strong response for “learning about AAT would encourage APRNs to initiate a program” scores reflected 16.7% (*strongly agree*), and 83.3% (*agree*). This indicated positive impact of the AAT training/education aspect for the posttest.

Table 9

Knowledge and Usage

		Pretest		Posttest	
		Frequency	**Percent**	**Frequency**	**Percent**
Question 25	Strongly Agree				
	Agree	6	100.0	6	100.0
	Disagree				
	Strongly Disagree				
	Total	6	100.0	6	100.0
Question 26	Strongly Agree			1	16.7
	Agree	4	66.7	5	83.3
	Disagree	2	33.3		
	Strongly Disagree				
	Total	6	100.0	6	100.0

Evaluation of Plan

The purpose of this capstone project was to implement an educational component, teaching AAT program start-up, guidelines, etc. and utilizing a pretest and posttest in survey format to propose a clinical practice change initiative at a behavioral health care facility for APRNs who care for children and adolescents. Desired outcomes for this project were to implement a clinical practice change initiative to utilize AAT at a children’s behavioral healthcare center. The desired outcomes of this project was to (a) have AAT incorporated as a form of an adjunct intervention for children and adolescents with behavioral healthcare needs, and (b) to utilize the local AAT volunteer program to benefit the needs of the community and save money.

Community Collaborations. The primary stakeholders of this proposed project was the primary researcher, faculty, preceptor, staff of the behavioral health clinic, and the hospital managers. Community resources such as Pet Partners were contacted for information to establish point of references. Implementing an alternative approach as an intervention to help the children and their families in the community will provide an efficient way of therapy. AAT is a volunteer basis and in collaboration with the hospital organization and the AAT, organization will provide cost efficiency for the behavioral health center and those in need.

Application to Clinical Setting and Program Design. The ultimate outcome of this project was for the agency to incorporate AAT as an additional means of intervention for children with mental health disorders. Should more demographic data have been included in this project? Demographic data such as gender, age, experience, educational level, could have played a difference.

Results of the data collected could provide further quantitative research of the benefits of AAT and address attitudes to change. Further studies will determine the needs of future evidence-based practice research projects. Results of the data may have also been influenced by results mentioned in the SWOT analysis such as having a supportive group but having a disadvantage from not being a full-time employee at the facility where the project was conducted. Future analysis will need further exploration and questionnaire formatting.

CHAPTER V – SUMMARY

The AAT needs further attention and studies as suggested in the literature review. While some facilities still view animals in a hospital setting as dangerous and unsanitary (Hsu et al., 2011), it is with proven documentation of the use of AAT, as discussed previously, it is generally acknowledged that AAT functions and enhances medical intervention. By providing educational sessions to health care professionals, AAT can have a greater impact on motivation to change for a positive outcome in allowing AAT as an alternative medical intervention in a behavioral health care setting. Recent literature suggests that further studies are needed for rigorous designs to determine the conditions of AAT as most effective (Dietz, Davis, & Pennings, 2012).

This DNP capstone project's outcomes indicated APRNs perceptions of AAT and increased knowledge awareness in utilizing AAT in clinical practice. Following the presentation of AAT education, a brief interaction with the APRNs presented several questions for discussion. They all felt that this was an interesting topic as well as need for further review. Other questions were about dog breed, what type of dog would suit AAT for children with reading difficulties. Other topics included costs and comparison of AAT modalities.

Limitations

There are several limitations for this capstone project. The sample size of this project was small. This was intended to capture a smaller audience with intentions of expansion to other healthcare providers. One limitation could be location. The behavioral health care center is located in a rural area. Another limitation could have been reflected on the impact of the project, which is that the researcher is not a full-time

employee of the facility. Another limitation could be related to shortage of time for the researcher within the facility. The lack of demographical data could have been a limitation. There were few comments made about how this subject matter was seemed to be of interest, but this researcher felt there was a lack of direct questioning pertaining to at the end of the presentation would this change their views or perception of incorporating AAT in practice. Time constraints played a key factor with the educational aspect of AAT for the APRNs.

Theoretical Framework

Rogers "Diffusion of Innovations" was an excellent example of producing change process within an organization. Four elements of Roger's model indicated extreme importance in the social and characteristics of perceptions domain. The goal with this framework was to capture a strong supportive group such as the APRNs for advocacy of AAT with children and adolescents. Research has indicated that Roger's model has been used for countless healthcare process improvement projects. The elements of Roger's model provided an opportunity to guide this project's intent to enrich a behavioral health care facilities clinical practice by incorporating AAT as part of the APRNs intervention in this clinical practice change initiative.

Implications for Practice

The implications for the future involve need for further quantitative research. Incorporating this form of clinical practice change would provide quantitative data, and more importantly, an advocacy for AAT to be utilized with children and adolescents with behavioral health care needs to serve as psychotherapeutic interventions. Our youth is

our future, and it is highly important to meet their mental health needs. This project may have set forth the thought of implementing AAT in clinical practice.

Recommendations for Future Research

This DNP project will lead other future projects to grow and develop future evidenced based guidelines to enhance treatment of children and adolescents at a behavioral health care facility.

Conclusion

This DNP capstone project has provided a stepping-stone to fulfill the goal of incorporating AAT in a clinical practice change initiative presented to APRNs by introducing a therapeutic component to enhance treatment for children and adolescents with mental health illnesses. Some scenarios played out in the survey questionnaires presented there was a need for a knowledge base interaction of AAT. Some questions need further review, for instance, it would be interesting to know why some APRNs changed from agree to disagree or strongly disagree. Are they totally against animals in the psychotherapeutics realm of care, or is there concern for time. These are all potential for further research. However, there did seem to be some interest in the majority of the group.

APPENDIX A Chandler Permission

☆ **Chandler, Cynthia**

October 30, 2014 at 8:47 AM

To: Donna Rae

Details

CC

You have my permission to use the guidelines from my book as long as you provide proper citation. This e-mail should provide sufficient permission for your IRB Board. If not let me know.

Cynthia K. Chandler, Ed.D., LPC-S, LMFT-S
Professor of Counseling
Director, Consortium for Animal Assisted Therapy
Department of Counseling and Higher Education
University of North Texas
1155 Union Circle, #310829
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Phone: 940 367 4189 (cell); 940 565 2910 (office); 940 565 2905 (fax)
E-mail: cynthia.chandler@unt.edu
Website: http://www.coe.unt.edu/animal-assisted-therapy
Website: http://www.coe.unt.edu/consortium-animal-assisted-therapy
Website: http://www.coe.unt.edu

Caution: E-mail is not a confidential medium for sending information.

From: Donna Rae <drcowell1@gmail.com>
Sent: Tuesday, October 28, 2014 10:41 AM
To: Chandler, Cynthia
Subject: Donna Cowell letter of approval

APPENDIX B About Pet Partners

Pet Partners is the national leader in demonstrating and promoting positive human-animal therapy, activities and education. Nearly forty years since the organization's inception, the science that proves these benefits has become indisputable. Today, Pet Partners is the nation's largest and most prestigious nonprofit registering handlers of multiple species as volunteer teams providing animal-assisted interactions. Pet Partners teams interact with a wide variety of clients including veterans with PTSD, seniors living with Alzheimer's, students with literacy challenges, patients in recovery, people with intellectual disabilities and those approaching end of life. The impact of these interactions is felt one million times a year. Pet Partners' curriculum and continuing education for licensed instructors, evaluators and handlers is the gold standard in the field.

Animal-Assisted Therapy is now frequently being prescribed by doctors for their human patients. Numerous scientific research studies have proven that interactions with animals:

- Reduces blood pressure
- Lowers anxiety and stress levels
- Stimulates the release of endorphins, which help people feel good, which is especially important for those feeling isolated or depressed
- Encourages exercise
- Leads to more independent and fulfilling lives
- Increases a sense of community

APPENDIX C IAHAIO

Animal Assisted Activity (AAA)

AAAs are informal interactions/ visitations often conducted on a volunteer basis by the human-animal team for motivational, educational and recreational purposes. There are no treatment goals for the interactions. AAAs are generally facilitated by individuals who do not have a health, education or human service degree. Human-animal teams have received at least introductory training, preparation and assessment to participate in informal visitations. Human-animal teams who provide AAA may also work formally and directly with a healthcare, educator and/or human service provider on specific documentable goals. In this case they are participating in AAT or AAE that is

conducted by a specialist in his/her profession. Examples of AAA include animal assisted crisis response that focuses on providing comfort and support for trauma, crisis and disaster survivors, and visiting companion animals for 'meet and greet' activities with residents in nursing homes.

GUIDELINES FOR HUMAN AND ANIMAL WELLBEING IN 'AAI' AND 'AAA'

Human Wellbeing

- Safety measures for clients must be in place. Professionals must reduce risk for clients involved in AAI and AAA. They must ensure that clients do not have species or breed specific allergies, be aware of high risk in some population and of exclusion criteria depending on the risk (e.g., infection in immune-suppressed patients, and diseases which can be spread from client to client via the animal). Appropriate testing with individual animals is advised.
- Clients may have different views about specific animals included in interventions. When the clients' beliefs – religious, cultural, or otherwise – run counter to recommended AAI and AAA, it is advisable that professionals discuss with clients alternative options.

Animal Wellbeing

AAI and AAA should only be performed with the assistance of animals that are in good health, both physically and emotionally and that enjoy this type of activity. Professionals are held accountable for the well-being of the animals they are working with. In all AAA/AAI professionals need to consider the safety and welfare of all participants. Professionals must understand that the participating animal, independent of the species, is not simply a tool, but a living being. Below are descriptions of best practices for animals involved in AAI and AAA, including assistance and service dogs.

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unlikely meets the psychological or physical welfare needs of either human participants or dolphins (Brakes & Williamson, 2007, p.18). However, observation and contemplation about wild animals in the natural world and in wild life sanctuaries that meet national/international animal welfare standards may be involved as opposed to direct contact with wild animals provided it is done in a way not to cause the animals any stress or damage to their habitat.

- Not all animals, including many that would be considered "good pets" by their owners, are good candidates for AAI or AAA. Animals considered for participation in AAI or AAA should be carefully evaluated by an expert in animal behavior such as veterinarians and animal behaviorists. Only those with the proper disposition and training should be selected for AAI or AAA. Regular evaluations should be performed to ensure that the animals continue to show proper disposition. A veterinarian behaviorist or an animal behaviorist should also examine animals considered for AAI before their involvement with clients – assessing them for health, temperament & behavior and ensuring that all appropriate preventive medicine protocols are in place.

- Handlers and professionals working with animals should have received training and knowledge of the animals' well-being needs, including being able to detect signs of discomfort and stress. Professionals should have taken a course on general animal behavior and appropriate human-animal interactions and species specific (i.e., horses, pigs, hamsters, gerbils, and others) interactions.

- Professionals must have an understanding of animal specific boundaries that are normal and respectful to them. Animals participating in AAI and AAA should never be involved in such ways that their safety and comfort are jeopardized. Examples of such inappropriate activities and therapy exercises include, but are not limited to, clients (children and adults) jumping or bending over animals, dressing up animals in human clothes or costumes, outfitting animals with uncomfortable accessories (dressing other that clothes such as bandanas, weather related jackets, booties designed specifically for animals), or asking an animal to perform physically challenging or stressful tasks (e.g., crawling, leaning/bending in unnatural positions, pulling heavy gear) or tricks and exercises that require such movements and postures. Clients should be supervised at all times and in all settings (e.g., schools, therapy sites, nursing homes) to make sure that they are not teasing the animal (e.g., pulling tail/ears, sitting on or crawling under the animal) or otherwise treating the animal inappropriately, thereby putting themselves and the animal at risk.

- Professionals who are responsible for the well-being of the animal during intervention must ensure that the animal is healthy, well rested, comfortable, and cared for during and after the sessions (e.g., provision of fresh water, work floors that are safe and suitable). Animals must not be overworked or overwhelmed and sessions should be time limited.

- Proper veterinary care must be provided. All animals participating in AAI or AAA must be checked by a veterinarian during the selection process and on a regular basis. The frequency of these checks should be decided by the veterinarian based on each animal's needs and the type of activities the animal is involved in. Care of the animals must be appropriate to the species. This includes species specific food and housing, appropriate temperature, lighting, environment enrichment and other pertinent features and ensuring that the animal is able to maintain natural behavior to the extent possible.

- Adequate measures must be taken to prevent zoonoses. Professionals must ensure that the animals receive a routine health evaluation by a licensed veterinarian at least once a year regarding appropriate (flea), parasite, (tick or mange) prevention (control) and screening for specific, potentially zoonotic microorganisms, including group A streptococci, if indicated.

- Professionals and administrators working in partnership with visiting or resident animals in institutions such as schools, psychiatric wards, prisons & residential programs need to be aware of local (e.g., school, district, state) laws and policies. Within their own programs and institutions professionals should advocate for policies and procedures to ensure care is provided for animals assisting in AAI and AAA. The formation of an ethics committee is advised and the committee must include individuals knowledgeable in animal welfare (e.g., veterinarian)

- Assistance Dogs are highly specialized and guidelines for professionals working in partnerships with Assistance dogs are not part of this document.

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Given the biological and psychological evidence for the innate affinity of humans to companion animals and a commitment to their health and welfare, the members of the International Association of Human-Animal Interaction Organizations overwhelmingly embrace the concept of "One Health," which asserts that the health and wellness of animals, people, and the environment are inextricably linked (http://www.iahaio.org/files/declarationchicago.pdf, IAHAIO 2013 Chicago Declaration) .

APPENDIX D Pet Partners Program Requirements

Program Requirements

Pet Partners is proud to register nine different species for therapy animal work. Although the majority of our teams are dogs, we also register cats, equines, rabbits, guinea pigs, llamas and alpacas, birds, pigs and rats.

Criteria for Prospective Therapy Animals
Pet Partners Therapy Animals:

Are at least 1 year old at the time of evaluation, or 6 months old for rabbits, guinea pigs and rats
Have lived in the owner's home for at least 6 months, or 1 year for birds
Must be reliably house trained. Waste collection devices are not permitted, with the exception of flight suits for birds.
Be currently vaccinated against rabies. Rabbits, guinea pigs, rats and birds are exempt from this requirement. Titers are not accepted in lieu of vaccination.
May not be fed a raw protein diet
Have no history of aggression or seriously injuring either people or other companion animals. This includes animals who have been trained to aggressively protect and/or have been encourage to bite, even if it is a component of dog sport, such as Schutzhund.
Demonstrate good basic obedience skills, such as walking on a loose leash, and responding reliably to common commands such as "sit," "down," "stay," "come" and "leave it"
Welcome, not just tolerate, interactions with strangers
Animals with an Illness
Animal welfare and infection control are key principles in the Pet Partners Therapy Animal Program. Asking animals to make therapy animal visits when they are not healthy increases stress and can lead to a worsened condition. Additionally, you may visit clients with compromised immune systems who would be at risk for transmission of zoonotic diseases.

If your animal is taking antibiotics, antifungals or immunosuppressants they will be unable to register and visit until they have finished treatment.

Animals with a Disability
Pet Partners does register animals with disabilities as long as visiting does not aggravate the medical condition. If your animal's disability may require accommodations to the evaluation, please contact us and we'd be happy to discuss the specifics of your particular situation.

Criteria for Prospective Handlers
Successful handlers will be able to:

Read their animal's particular body language and recognize when their animal is stressed, anxious, concerned, overstimulated or fatigued

Demonstrate positive interactions with their animal by praising, cueing, encouraging and reassuring the animal as needed
Be able to cue or redirect their animal without raising their voice, forcefully jerking on the leash or offering the animal food or toys
Make casual conversation with those they meet on visits while still being attentive to their animal
Guide the interactions of others with the animal in a professional and polite manner
Advocate for the safety and well-being of their animal at all times
Please note: All handlers must have an email address in order to participate in the Therapy Animal Program.

Volunteers Who Are Minors
Pet Partners welcomes handlers as young as 10 years old. If you are under the age of 16, you must be accompanied on all visits by a parent/guardian or an adult appointed by the parent/guardian. All individuals under the age of 18 must have permission to participate from a parent or guardian, which is collected during the application process.

Volunteers with a Disability
Pet Partners works with handlers with a disability, including those with service animals. If your disability may require accommodations to the evaluation, please contact us and we'd be happy to discuss the specifics of your particular situation.

Volunteers Who Don't Own the Animal
You may volunteer with the animal of a friend or family member, as long as you have known and been working with the animal for at least 6 months (or 1 year for birds) and have the permission of the animal owner. Effective therapy animal teams are based on a strong bond between the handler and animal. Pet Partners relies on handlers to have a strong relationship with their animal so they can read body language and signals that their animal may be tired, stressed, anxious or fearful and then support them accordingly.

Do You Inspire Confidence as a Team?
After you have reviewed all the basic requirements, this is the question that will truly determine your ability to become a successful team. Therapy animals must inspire confidence in those they meet, so they should consistently demonstrate that they're well-behaved and have good manners. The three terms Pet Partners uses to describe this desired behavior are reliable, predictable and controllable. When you can predict your animal's reactions, you can take action to ensure a reliable response and maintain control of your animal in any situation. When clients and facility staff perceive that you're in control of your animal, they'll have confidence in you and your animal when you come for visits.

APPENDIX E Pet Partners Become a Handler

Become a Handler

We're excited to know you're interested in becoming a therapy animal team with your animal! While therapy dogs make up 94% of the teams in our Therapy Animal Program, we register nine species overall. So what do you need to do?

Make Sure It's a Good Fit
There are two parts to this first step. First of all, thoroughly review the Program Requirements and the Policies and Procedures to make sure this is a good fit for you and your animal.

If you're ready to proceed, you'll want to confirm that there is a team evaluator in your area since all teams must complete an in-person evaluation in order to register. You can perform a search based on your location. Once you're confident Pet Partners is in your area, we invite you to set up an account which will help you manage your registration process.

Complete the Handler Course
The key to safe and effective visits is training for the "human end of the leash." The handler course can be taken online or as an in-person workshop if there is an instructor in your area. You'll spend time learning about ways you can support your animal while on visits as well as orient yourself to the standards of the Therapy Animal Program and best practices. This will include preparing you for what to expect when you evaluate.

Visit the Vet
All animals who participate in the Therapy Animal Program must be healthy, so you'll ask your veterinarian to complete an Animal Health Screening Form to submit with your application.

Pass Your Team Evaluation
Evaluations take approximately 45 minutes and are a role play of a visit. The Team Evaluation process evaluates the animal/handler team; how well the handler interprets and manages the animal's behavior and how well the animal responds to the handler. This process allows Pet Partners a rigorous way to identify teams that will be safe and successful in the community.

APPENDIX F Pet Partners Fees

Fees

Pet Partners relies on the skills and generosity of hundreds of volunteers as Instructors and Team Evaluators. When conducting a class or an evaluation, they may incur costs for providing text books to workshop students or rental fees for spaces used. Instructors and Team Evaluators often charge a fee to recover these costs. These amounts will vary by location.

As a registered therapy animal team with Pet Partners, you receive a variety of benefits including liability insurance, volunteer support, access to resources and free continuing education coursework. Your registration fee paid to Pet Partners directly covers only a portion of the costs to register and support a team for two years. Pet Partners relies on charitable donations and sponsorships to continue to make this program possible.

Fee Structure

Registration Type (subject to change)	2 Year Registration Fee
New Therapy Animal team w/ one animal	$95
Renewing Therapy Animal Team w/ one animal	$70
Community Partner Member w/ one animal, new or renewing	$50
Senior aged 55 and over; minor; military or military dependent; individual with a disability	$50
Therapy Animal Team Additional Handler	$30 per handler
Therapy Animal Team Additional Animal	$30 per animal

APPENDIX G Community Partner Responsibilities

Responsibilities

As a community partner of Pet Partners, the expectation is to share in the overall mission and visio of the organization by supporting and promoting human-animal interactions in your area. To mainta the status of community partner in good standing, you are responsible for the following items as described below.

Minimum Membership

Pet Partners understands that group membership can flux over time. At the time of your annual review, you will be asked to confirm your current roster of members. At this time, you should be abl to demonstrate you have met the minimum requirements of 20 registered volunteers (this includes teams or Ambassadors) and 1 team evaluator.

Annual reviews occur in March, June, September and December, depending on when you first became a community partner. Your annual review is typically the end of the quarter after your first full year. For example: if your community partner agreement was completed in January 2015, your annual review would be March 2016. If your agreement was completed in December 2015, your annual review would be December 2016, one full year later.

Training and Evaluation

All therapy animal teams of a Community Partner must be registered with Pet Partners. This means all teams are trained and evaluated using Pet Partners current curriculum and to Pet Partners standards.

Pet Partners does not have an exclusivity requirement for volunteers, but rather prefers to take a more collaborative approach believing that there is lots of good work to be done in the world of animal assisted therapy. Members may belong to other groups concurrently with Pet Partners, so long as they maintain their registration and, when representing Pet Partners, conduct visits to Pet Partners standards.

APPENDIX H Pet Partners LEARN

APPENDIX I SWOT Analysis

SWOT Analysis
Behavioral Healthcare Center Outpatient for Children and Adolescents

APPENDIX J Permission of Adoption Tool

Angela

Re: letter

To: Donna Rae

Yes of course you can use it!

Sent from my iPhone

> On Oct 28, 2014, at 11:37 AM,

APPENDIX K AAT Usage Survey Instrument Pretest

Animal Assisted Therapy Usage Survey Instrument
Pretest

Participants in this survey are voluntary and anonymous. The survey will take approximately 10 minutes. Completion and submission of the study to the primary investigator indicates consent for the survey response to be used for the study.

Nurse Practitioner Specialty: Psychiatric/Family/Pediatric/Other

Please respond to the following questions:	**Yes**	**No**
1. Do you currently provide care to children and adolescents?		
2. Do you know about Animal Assisted Therapy?		
3. Do you know what Animal Assisted Therapy can be used for?		
4. Does your current healthcare facility define policies and procedures for Animal Assisted Therapy?		
5. Would you consider Animal Assisted Therapy a billable item?		
6. Could Animal Assisted Therapy be an interactive complexity?		

Please respond to the following question:	**Very Important**	**Important**	**Fairly Important**	**Not Important**
7. How important is your role in the use of Animal Assisted Therapy as an adjunct in therapy for children and adolescents?				

Please rate the following barriers to implementing a standardized Animal Assisted Therapy clinical adjunct intervention into your daily practice:				
Barrier	**No Barrier**	**Mild Barrier**	**Moderate Barrier**	**Severe Barrier**
8. Insufficient time knowledge on specific screening tools				
9. Knowledge on Animal Assisted Therapy use				
10. Knowledge on Animal Assisted Therapy benefits				
11. Adequate resources and services				
12. Training on management of Animal Assisted Therapy				
13. Participation of peers				

Please respond to the following statements:	**Strongly Agree**	**Agree**	**Disagree**	**Strongly Disagree**
14. Utilizing a standardized approach to Animal Assisted Therapy may improve care and health outcomes.				

15. There are benefits to using structured Animal Assisted Therapy in clinical practice.				
16. The advanced practice registered nurse has unique skills that may facilitate the implementation of a standardized clinical practice guideline.				
17. I have adequate knowledge regarding Animal Assisted Therapy.				
18. I have adequate knowledge regarding Animal Assisted Therapy clinical practice guideline.				
19. I received adequate education and training during nursing school on Animal Assisted Therapy.				
20. There is a need for standardized Animal Assisted Therapy as an adjunct in treatment for children and adolescents.				
21. I could incorporate standardized Animal Assisted Therapy into my practice				
22. I could initiate a standardized Animal Assisted Therapy program in my current health care facility/organization				
23. Incremental implementation of an Animal Assisted Therapy program would improve my participation.				
24. Incremental implementation of an Animal Assisted Therapy program within my health care facility/organization would improve program success.				
25. Learning about other Animal Assisted Therapy programs would encourage me to engage in AAT practice.				
26. Learning about other Animal Assisted Therapy programs would encourage me to initiate a program within my facility/organization.				

APPENDIX L Animal Assisted Therapy Usage Survey Instrument Tool Posttest

Animal Assisted Therapy Usage Survey Instrument
Posttest

Participants in this survey are voluntary and anonymous. The survey will take approximately 10 minutes. Completion and submission of the study to the primary investigator indicates consent for the survey response to be used for the study.

Nurse Practitioner Specialty: Psychiatric/Family/Pediatric/Other

Please respond to the following questions:	**Yes**	**No**
1. Do you currently provide care to children and adolescents?		
2. Do you know about Animal Assisted Therapy?		
3. Do you know what Animal Assisted Therapy can be used for?		
4. Does your current healthcare facility define policies and procedures for Animal Assisted Therapy?		
5. Would you consider Animal Assisted Therapy a billable item?		
6. Could Animal Assisted Therapy be an interactive complexity?		

Please respond to the following question:	**Very Important**	**Important**	**Fairly Important**	**Not Important**
7. How important is your role in the use of Animal Assisted Therapy as an adjunct in therapy for children and adolescents?				

Please rate the following barriers to implementing a standardized Animal Assisted Therapy clinical adjunct intervention into your daily practice:				
Barrier	**No Barrier**	**Mild Barrier**	**Moderate Barrier**	**Severe Barrier**
8. Insufficient time knowledge on specific screening tools				
9. Knowledge on Animal Assisted Therapy use				
10. Knowledge on Animal Assisted Therapy benefits				
11. Adequate resources and services				
12. Training on management of Animal Assisted Therapy				
13. Participation of peers				

Please respond to the following statements:	**Strongly Agree**	**Agree**	**Disagree**	**Strongly Disagree**
14. Utilizing a standardized approach to Animal Assisted Therapy may improve care and health outcomes.				

15. There are benefits to using structured Animal Assisted Therapy in clinical practice.				
16. The advanced practice registered nurse has unique skills that may facilitate the implementation of a standardized clinical practice guideline.				
17. I have adequate knowledge regarding Animal Assisted Therapy.				
18. I have adequate knowledge regarding Animal Assisted Therapy clinical practice guideline.				
19. I received adequate education and training during nursing school on Animal Assisted Therapy.				
20. There is a need for standardized Animal Assisted Therapy as an adjunct in treatment for children and adolescents.				
21. I could incorporate standardized Animal Assisted Therapy into my practice				
22. I could initiate a standardized Animal Assisted Therapy program in my current health care facility/organization				
23. Incremental implementation of an Animal Assisted Therapy program would improve my participation.				
24. Incremental implementation of an Animal Assisted Therapy program within my health care facility/organization would improve program success.				
25. Learning about other Animal Assisted Therapy programs would encourage me to engage in AAT practice.				
26. Learning about other Animal Assisted Therapy programs would encourage me to initiate a program within my facility/organization.				

APPENDIX M Literature Review Table

Literature Review Table AAT incorporation Clinical Practice Change Initiative for Mental Health APRNs

Authors Date	Study Type	Sample	Data Collection	Key Findings
American Association of Colleges of Nursing (2006)	Professional Org. DNP	Info	Info	DNP Essentials
American Psychology Assoc. (2014)	Professional Org. Psychiatry Info	Info	Info	Children mental health needs
Berget (2008)	Quantitative	Healthcare personnel	Questionnaire	Perceived differences Lack Knowledge
Chandler (2012)	Book	Multiple	Example Forms	Info. for initiating prog.
Chism (2013)	Book Professional Knowledge	N/A	N/A	DNP
Cole et al. (2007)	Quantitative	Critical Care setting, Cardiac data	5 variables measured	RCT measurable data support benefits
DeCourcy et al. (2010)	Literature Review	Multiple		Review current EBP; Eval. possible implementation; Cost effective
Dietz et al. (2012)	Quantitative	Ages 7-17(153) CSA: PTSD, anxiety, depression	Pre/posttrauma symptom inventory (TSCC Briere '96)	Decrease trauma symptoms in dogs/stories group therapy
Ewing et al. (2007)	Quantitative Qualitative	Equine	28 students 5 tools	Eval. youth with severe emotional disturbance Benefits
Fine (2010, 2015)	Book	Multiple	Multiple	Benefits, Implementing process
Friesen (2009)	Literature Review Exploratory	Multiple	Multiple	Benefits

Freud (1930s) Dufresne (2003) Coren (2013) Grinker (1940, 2001) Genosko (1994) Jones (1957)	Book Revised Translated works	Observation Other authors noted	Patients Notes Observations	Positive benefits
Glanz et al. (2011)	Book	N/A	N/A	Change
Gentile (2014)	Online resource psychiatry	N/A	N/A	Access to care info.
Goddard (2015)	Literature Review	Multiple Studies	Multiple Studies	Intervention goals
Horowitz (2010)	Literature Review	Multiple	Multiple	Terminology
Levinson (1969, 1972, 1997)	Book	Multiple Observations	Multiple Hypothesis	Jingles as co therapist, reflect positive benefits for children
Mano (2011)	Empirical	Theory	Theory	Model attachment theory; benefits
Marcus et al. (2012, 2013)	Quantitative	Pain Clinic Pts	Standardized surveys, Questionnaire	Measurable outcomes
McQuarrie et al. (2008)	Book Formerly Delta Society.	Multiple	Multiple	Research events of AAT benefits
National Alliance on Mental Illness (2009)	Mental Health	Info	Info	Needs
Nightingale (1860)	Book	History Founder	Notes	Positive benefit for patients
Palley et al. (2010)	Literature Review	Multiple	Multiple	Costs Further research
Parish-Plass (2008)	Qualitative Descriptive	Animals: Dog, 2 birds, hamster, rat. 8 Children (ages 6-11)	Observation Clinical trial	Strengths Multiple clinical diag. of children (abuse/neglect, attachment

				disorder).
Pet Partners Org. (2015)	Book National org.	Multiple studies	Multiple studies	Information Benefits Process of initiating AAT
Risley-Curtis (2010)	Quantitative Descriptive Study	Social work	Questionnaire	Lack of Knowledge, training
Rogers (2003)	Book Theory	N/A	N/A	Diffusion of Innovation theory
Williams (2008)	Literature Review	Multiple	Multiple	Further studies Concerns
Zaccagnini et al. (2014)	Book Professional Role	N/A	N/A	DNP

APPENDIX N Chandler Email

Chandler, Cynthia

July 21, 2014 at 2:11 PM

To: Donna Rae

Inbox - Google

CC

RE: Grad student interested in AAT

I am glad you enjoyed my book. Yes you may use the tools in the book. I do not bill, I am in a position to give my therapy away as a pro bono service. However, those who do bill, do not bill under a special category. The animal is an adjunct to therapeutic services so bill for what you are treating for (symptom or disorder).

Cynthia K. Chandler, Ed.D., LPC-S, LMFT-S
Professor of Counseling
Director, Consortium for Animal Assisted Therapy
Department of Counseling and Higher Education
University of North Texas
1155 Union Circle, #310829
Denton, TX 76203-5017 USA
Phone: 940 367 4189 (cell); 940 565 2910 (office); 940 565 2905 (fax)
E-mail: cynthia.chandler@unt.edu
Website: http://www.coe.unt.edu/animal-assisted-therapy
Website: http://www.coe.unt.edu/consortium-animal-assisted-therapy
Website: http://www.coe.unt.edu

APPENDIX O DNP Essentials and Advanced Practice Role

DNP Essentials I-VIII	Capstone Project
I: Scientific Underpinnings for Practice	Exploration of change as an agent for APRNs to incorporate new practice approaches in the outpatient setting and utilizing evidenced based practice and theory.
II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking	The project provides the DNP student to seek current modalities of practice in psychiatry to enhance healthcare delivery and improve patient outcomes for quality care.
III. Clinical Scholarship and Analytical Methods for Evidenced-Based Practice	The project critically examines recent literature for evidenced-based practice and improved patient outcomes.
IV. Information systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care	The project provides leadership role in developing and seeking change for improved patient outcomes and meeting consumer needs.
V. Healthcare Policy for Advocacy in Health Care	This capstone project provides DNP student to educate key stakeholders about incorporating AAT as a form of enhancement and developing policy.
VI. Interprofessional Collaboration for Improving Patient and Population Health Outcomes	This project allows a DNP student to act as consultant to implement change to incorporate an adjunct in clinical practice for improved outcomes.
VII. Clinical Prevention and Population Health for Improving the Nation's Health	This project proposes to improve mental health status of the proposed clientele and decrease potential mental health risks.
VIII. Advanced Nursing Practice	This project will assess, educate, implement, and evaluate the proposed adjunct intervention to improve mental health outcomes of children and adolescents.

APPENDIX P Approval Letter to USM

Pine Grove
Outpatient Services
Forrest Health®

February 2, 2017

The University of Southern Mississippi
Graduate School for the Degree of Doctor of Nursing Practice
Hattiesburg, MS 39406

To Whom It May Concern,

I have reviewed Donna Cowell's proposal to complete a capstone project at Pine Grove Behavioral Health Care facility. I understand that Donna Cowell is conducting this project as part of the program requirements for the Doctor of Nursing Practice degree at The University of Southern Mississippi and will have the opportunity to present the research findings in other venues.

Furthermore, I understand that the Institute Review Board for the use of human subjects in research at USM is concerned with protecting the confidentiality, privacy, and well-being of research participants. It is my understanding that Donna Cowell will additionally be advised on this project by her academic advisor and the USM field liaison, both of whom will have regular contacts with Donna Cowell.

Donna Cowell is fully aware of the health insurance portability and accountability (HIPPA) and the policies and procedure of Pine Grove's facilities. I do not have any reservations or concerns about the research study to be performed by Donna Cowell, based on our conversations and review of the proposal. I am not concerned about her knowledge of the facility based on her clinical practice hours and hospital personnel training.

Pine Grove supports Donna Cowell's plan and approves of the project, including recruitment of participants and data collection through the Pine Grove clinic.

Sincerely,

Patricia Calabrese PMHNP

Patricia Calabrese, PMHNP
Psychiatric Mental Health Nurse Practitioner

1 Lincoln Parkway, Suite 202 ■ Hattiesburg, MS 39402 ■ Phone 601-288-8050
www.pinegrovetreatment.com

APPENDIX Q IRB Approval

THE UNIVERSITY OF
SOUTHERN MISSISSIPPI

INSTITUTIONAL REVIEW BOARD
118 College Drive #5147 | Hattiesburg, MS 39406-0001
Phone: 601.266.5997 | Fax: 601.266.4377 | www.usm.edu/research/institutional.review.board

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.
  Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 17022201
PROJECT TITLE: A Clinical Practice Change Initiative to Incorporate Animal Assisted Therapy in Advanced Practice Registered Nurses' Clinical Practice for Children and Adolescents
PROJECT TYPE: New Project
RESEARCHER(S): Donna Cowell
COLLEGE/DIVISION: College of Nursing
DEPARTMENT: Systems Leadership and Health Organization
FUNDING AGENCY/SPONSOR: N/A
IRB COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 02/22/2017 to 02/21/2018
Lawrence A. Hosman, Ph.D.
Institutional Review Board

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