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Implementing Animal-Assisted Therapy During Psychiatric Intakes

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UNIVERSITY OF SAN DIEGO

Hahn School of Nursing and Health Science

DOCTOR OF NURSING PRACTICE

DOCTOR OF NURSING PRACTICE PORTFOLIO

By

Rebecca Dorne, BSN, RN, CCRN

A Doctor of Nursing Practice Portfolio presented to the

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DOCTOR OF NURSING PRACTICE

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Dr. Joseph Burkard, DNSc, CRNA, Faculty Advisor

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Acknowledgments

There are a great many to whom I owe a debt of gratitude for the completion of this project. First and foremost, the biggest thank you goes to Chloe Dorne – your docile temperament, unwavering desire to make me happy, and love of people made this project possible, and I could not have done it without you.

I would like to thank Delmore Antonio, Dr. Michelle Singh, and the staff at the Psychiatric Emergency Clinic at the VA Medical Center in La Jolla, for supporting my project without hesitation, facilitating its implementation, and for always treating Chloe like royalty. Thank you to Key Pritchett and Sue Subkow, whose guidance and support allowed for Chloe's success in obtaining her therapy dog certification. Martha Plack, my classmate, who graciously gave me the idea for this project. A special thank you to my uncle, James Seletz, for supporting me and encouraging me to pursue my DNP. To Dr. Burkard, my faculty advisor, for your guidance and mentorship, for advocating for me, and for believing in my success.

To my friends, Andrea DeCesaris and Tina Palladino, thank you for supporting me throughout my journey both as a nurse and a graduate student, and for being the very best godparents to both Chloe and her sister Ida. Lastly, I wish to thank Ana Benitez, who has always believed in me and raised me to always strive to be the very best version of myself.

Dedication

This project is dedicated Noodle Dorne, my beloved black cat who passed away just before my senior year of graduate school. I will forever miss our cuddle sessions and trying to work on projects for class with you sprawled across my laptop. Your life was a blessing, your memory a treasure.

Opening Statement: Purpose in Pursuing the DNP

My passion in nursing has always been built on a foundation of mental health advocacy. I went to Drexel University in Philadelphia for undergrad and earned my Bachelor of Nursing Science degree and Registered Nurse license by the time I was 23 years old. Shortly thereafter I challenged myself by pursuing a career in critical care, where I stayed for 9 years. Though the majority of my bedside experience is in critical care, I secured a reputation amongst my colleagues for being holistic in my practice, bridging the gap between health, mind, body, and spirit. I witnessed the psychological trauma that these critically ill patients endured as a result of their physiologic illnesses, and how little the acute medical environment afforded these patients by way of mental healthcare. Patients who survived lengthy ICU stays would return to the unit to visit only to be overcome with traumatic memories of their experiences there fighting for their lives and would be flooded with the emotion of unprocessed grief.

The critical care environment gave me the bones I needed to be successful in the world of psychiatry, a foundation in compassion, intelligence, and robust critical reasoning skills. After working in various ICUs across California while travel nursing during the COVID-19 pandemic, I made the decision to pursue a career as a Nurse Practitioner in psychiatry and mental health. I applied to a Master of Psychiatric Mental Health Nurse Practitioner program in Philadelphia and the University of San Diego's (USD) Doctor of Nursing Practice program in the Psychiatric Mental Health Nurse Practitioner track. During my interview, Dr. Terry pointed out the accolades I had earned during my career as an intensive care nurse and spoke of the benefits of completing a Doctorate program. After the interview I thought, why would I only pursue a master's degree and risking having to go back to school again in the future? I researched the difference between the two programs and realized the Doctorate program at USD was a better fit. Not only doubling the number of clinical hours but understanding research and applying that research to provide better outcomes, I knew would give me more knowledge and experience when changing my role from a nurse to a Nurse Practitioner.

Implementing Animal-Assisted Therapy During Psychiatric Intakes

Rebecca Dorne, BSN, RN, CCRN, PMHDNP Student

Hahn School of Nursing, University of San Diego

6 May 2024

Abstract

Introduction: The purpose of this evidence-based project is to determine if Animal-Assisted Therapy (AAT) causes improvements in veterans' feelings of anger, anxiety, depression, and suicidality in the acute psychiatric setting during psychiatric evaluations. The project aims to provide veterans with an additional way to experience short-term relief from symptoms while discussing their symptomology with mental health providers.
Background: The prevalence of depression is 20% higher in veterans than in that of the general population. Similarly, it has been shown that 23% of all veterans using VA care have had PTSD at some point in their lives. In the Psychiatric Emergency Clinic (PEC) at the VA in La Jolla, PTSD, depression, anxiety, and substance use disorder are among the most common diagnoses. These patients often struggle with mood lability, anxiety, and avoidance, making it difficult for providers to get a thorough history to guide recommendations. Utilizing animal assisted therapy (AAT) during the appointment may put patients at ease and provide a comforting distraction when discussing emotionally triggering subjects.
Methods: This project evaluates self-reported feelings of anger, anxiety, depression, and suicidal urges in 15 veterans both immediately before and immediately after a psychiatric intake where AAT took place. Using the Brief Mood Survey, veterans rated their symptoms in each category on a scale of 0-5. The Brief Mood Survey (BMS) was utilized to determine baseline pre-intervention mood scores, and a post-intervention survey was administered to determine the efficacy of the intervention when compared to baseline.
Results: The BMS scores, which included 5 subscales per category for depression, anger, and anxiety and 2 subscales for suicidal urges, were used to evaluate the efficacy of AAT during psychiatric intakes. The results showed improvements in post-intervention scores compared to pre-intervention scores in all categories, with the most significant improvements seen in the areas of anger and suicidal urges.
Evaluation: The marked improvements that were observed in all mood categories on the BMS suggest that AAT is effective as a supplemental intervention for utilization during psychiatric intakes in the acute psychiatric setting.

Keywords: Animal-Assisted Therapy, Canine-Assisted Therapy, Psychiatric Intake, Brief Mood Survey, Anger, Anxiety, Depression, Suicide

Implementing Animal-Assisted Therapy During Psychiatric Intakes

Background and Significance of Problem

The therapeutic relationship (TR) is considered to be the cornerstone for clinicians who aim to provide competent and effective psychiatric care. Numerous factors including patient/provider attributes and circumstances of admission make establishing a therapeutic alliance between provider and patient particularly difficult in the acute psychiatric setting when compared to long-term, scheduled mental health visits (Bolsinger et al., 2020). Providers of acute psychiatric care in the emergency setting are faced with the challenge of providing compassionate care while obtaining a thorough and complete history of presenting illness, all without sacrificing efficiency despite being at a clear disadvantage compared to other outpatient practices that tend to chronic mental health needs.

The veteran population is disproportionately affected by mental illness in comparison to the rest of the population. Studies show that 14% to 16% of veterans deployed to Iraq and Afghanistan have been affected by depression or post-traumatic stress disorder (PTSD) (Inoue et al., 2023). Anxiety was found to be among the third highest disorder prevalence in US Veterans, at 14% (Hruby et al., 2021) while the National Veteran Suicide Prevention Annual Report showed that the suicide rate for veterans is 57.3% greater than for non-Veterans (US Department of Veterans Affairs, 2022). For veterans struggling with mental illness, describing in detail the chronology and symptomology of their psychopathology can be incredibly daunting and overwhelming, especially because this population is so commonly affected by PTSD. The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5-TR)

defines, “persistent avoidance of stimuli associated with the traumatic event(s)” as a key feature for the diagnosis of PTSD (American Psychiatric Association, 2022). This poses a unique set of challenges when treating mental health disorders, particularly in the acute psychiatric setting.

Literature Review

PICO Question

Once a clinical problem has been identified, it is beneficial to use a PICO question to clarify the focus of an evidence-based practice change (Brown & Ecoff, 2011). Development of this project began with formulating the following PICO question: In veterans with mental health disorders in the acute psychiatric outpatient setting, does implementing animal-assisted therapy (AAT) during psychiatric intakes, compared to psychiatric intakes without AAT, result in improvements in symptoms of depression, anxiety, anger, and/or suicidal urges on the Brief Mood Survey (BMS) with the session?

Literature Selection

Given the multi-faceted nature of this project, a broad literature review was conducted to identify current research on Veterans’ mental health disorders and associated statistics when compared to the rest of the population, evidence-supported uses of AAT in mental health settings, and validated tools for assessing mood in outpatient settings. Databases searched include PubMed, CINAHL, The Cochrane Database of Systematic Reviews, and Ovid. Initial database queries included various combinations of the following search terms: Animal-assisted therapy, PTSD, depression, acute, psychiatric, outpatient, practice, clinic, mental health, psychiatry, suicide, screening, and assessment. Article titles and abstracts were screened for relevance to the practice project.

Further literature was identified via backward and forward reference searching of the relevant articles identified during the initial review.

Mood Screening and Assessment

After extensive literature reviews and careful consideration, the determination was made to use mood to assess the efficacy of AAT during psychiatric intakes. The decision to use mood was born out of the idea that mood changes are a universal part of the human experience, and not necessarily unique to any one kind of mental disorder. While it is true that patients presenting to the Psychiatric Emergency Clinic (PEC) at the VA Medical Center in San Diego most often have PTSD as their primary psychiatric diagnosis, the goal was for this project to be inclusive of all patients presenting to PEC, regardless of diagnosis. Using a more general measure of assessment, such as mood, allows for a greater number of participants to potentially benefit from AAT as a result of the intervention.

Within the field of psychiatry and mental health, there is no standardized approach to assessing mood. This is partly due to the idea that aspects of mood exist as psychological constructs rather than as concrete, objective data points such as blood pressure or heart rate (Hensley, 2012). Over the years, a multitude of short-form screening tools and questionnaires have been developed, studied, and validated to assess mood. Examples of such scales include the Brief Attention and Mood Scale of 7 Items (BMS-7), the Brief Mood Introspection Scale (BMIS), the Quick Mood Scale, and the Burns Brief Mood Survey (BMS). Other mental health assessment tools such as the Beck Depression Inventory II (BDI-II), Patient Health Questionnaire-9 (PHQ-9), Quick Inventory of Depressive Symptomology Self-Report (QIDS-SR), Generalized Anxiety

Disorder-7 seek to formulate a basis for diagnosing a specific mental health condition rather than a global, short-form assessment of mood (Furukawa, 2010). The latter set of screening tools would therefore be more apt to assess the efficacy of AAT over an extended period of time within a specific population, such as patients with diagnosed major depressive disorder or generalized anxiety disorder.

The Burns Brief Mood Survey

The Burns Brief Mood Survey (BMS) was created by psychiatrist Dr. David Burns as a tool for psychotherapists assess for the presence of emotional and behavioral symptoms in their patients in four overarching categories: depression, suicidal urges, anger, and anxiety. Each of these mood symptoms have a strong base in mental health pathology and are not unique to any one kind of mental health disorder. Each of the four sections in the survey presents a set of questions or symptoms associated with the overarching category that it is intended to measure and is rated on a scale between 0 (not at all) to 4 (extremely). Anger, anxiety, and depression each contain 5 subsections, and the cumulative possible maximum core within each of these overarching categories is 20 points (which would indicate the maximum severity of symptoms). Suicidal Urges contains only two subsections, for a possible maximum score of 8 points.

The BMS has been successfully used by psychotherapists to determine short-term, in-session mood change in patients, and has been clinically validated to demonstrate excellent reliability and internal consistency (Wolever et al., 2011). The BMS was specifically selected for use in this project for the fact that each of the constructs assessed within the survey have been demonstrated to be positively impacted by AAT (Bert et al.,

2016). Therefore, the use of the BMS in an AAT intervention would contain the greatest amount of peer-reviewed mood data for assessment to support the use of the intervention.

Animal-Assisted Therapy in Mental Health

The use of animal therapy has been explored and discussed in the literature in a variety of settings and populations. In mental healthcare specifically, AAT has been shown to favor the therapeutic alliance in patients who have difficulties with therapeutic programs adherence (Pandey et al., 2024). In patients suffering from PTSD, AAT was correlated with a reduction in symptoms of anger and anxiety (Jones et al., 2019). A common feature in patients with PTSD is marked distress or difficulty when discussing emotionally triggering subjects. For these individuals, AAT is especially beneficial, as studies confer that participation in AAT reduces symptoms of depression, enhances mood, and promotes feelings of calmness particularly during stressful events such as psychotherapeutic and medical treatments (Beetz et al., 2019).

The benefits of AAT, however, are not limited only to patients with PTSD. AAT has also been clinically proven to be efficacious in individuals with depression, anxiety, and/or suicidal ideation by reducing symptoms, improving coping ability, and increasing both self-esteem and motivation (Shoib et al., 2022). Standardized approaches to AAT specifically in the acute outpatient psychiatric setting that utilize mood scoring instruments before and after treatment have been addressed in the literature, but applications in this setting are mostly limited to pediatric populations or adult populations with intellectual disabilities. At present, the literature concerning AAT specifically during psychiatric intakes is sparse, as the majority of AAT in mental health is utilized only during

psychotherapy. Nonetheless, each psychiatric intake conducted as part of this project included a minimum of 30 minutes of psychotherapy per intake.

Purpose

This project seeks to assess the efficacy and feasibility of implementing AAT during psychiatric intakes. The primary goal of this project is to determine if AAT during psychiatric evaluations in an acute psychiatric setting results in short-term reductions in patients' reported symptoms of depression, anxiety, suicidal urges, and anger within one session. This goal was developed with consideration for AAT as a means of mitigating the pitfalls inherent in the emergency psychiatric setting, namely the inability of providers to establish a sufficient therapeutic rapport with their patients due to meeting them on a short-term basis, often in the midst of a mental health crisis. Secondary aims of this project include increasing the use of AAT as an intervention in mental healthcare at the VAMC in San Diego, increasing engagement and compliance with mental healthcare amongst patients at PEC, and facilitating a culture in mental health where evidence-based alternative and complementary therapies are utilized.

Project Implementation

Evidence-Based Intervention

To support the goal of quantifying in-session mood changes as a result of AAT, the BMS was used to determine pre-intervention baseline mood, as well as post-intervention mood. Pre-intervention mood scores were analyzed and compared to post-intervention mood scores. The BMS has successfully been used for testing short-term impact and within-session change for a number of mental health interventions, including cognitive behavioral therapy (CBT) interventions (Wolever et al., 2011).

Veterans who presented to PEC for psychiatric care were assessed for any contraindications to participating in AAT. The latter determination was made by triaging mental health nurses at PEC, who routinely obtain a brief history of presenting illness and screen for acuity and suicide risk prior to matching the patient with an available provider to conduct a psychiatric intake. A brief in-service was performed for triaging nurses on how to determine patient eligibility for participation in AAT. In order to be eligible, patients had to first give consent to be evaluated while a therapy dog was present in the room and had to deny the presence of any preexisting contraindications, including animal phobias and pet dander allergies. Veterans who did not meet criteria for eligibility were arranged to meet with a different provider where AAT would not be implemented. Veterans deemed eligible to participate and included in the intervention sample (n = 15) were asked to fill out a de-identified, baseline, pre-intervention copy of the BMS and survey responses were analyzed. The first copy of the BMS was always administered by the triaging nurse before the patient had the opportunity to interact with either the therapy animal or the provider.

Evidence-Based Practice Model

The Iowa Model of Evidence Based Practice was used when developing this evidence-based implementation project. This model was chosen for its superior reputation in evaluating the efficacy of an intervention and is catered towards improving outcomes in healthcare. In this model, current practices in healthcare are called into question with knowledge and problem-focused triggers and incorporating research to improve patient care (Rycroft-Malone & Bucknall, 2010). The Iowa Model is application

oriented and accounts for every level of the intervention including dissemination of results.

Practice Change Process

The implementation phase of this project was developed in collaboration with key stakeholders at the project site. The project was reviewed and approved by the University of San Diego's institutional review board in February 2024 prior to any data collection or intervention. Upon completion of the intervention phase, project outcomes were evaluated, and relevant findings were disseminated to site stakeholders.

Primary Goal: Improving Brief Mood Survey Scores

Chloe, an 11-year-old mixed-breed certified therapy dog, was utilized as the sole therapy animal for this project. At the start of each psychiatric intake, each patient was introduced to both the provider and Chloe, and the intervention process was explained with the opportunity for clarifying questions to be answered. Veterans were made aware that they would be asked to fill out an identical copy of the BMS at the end of the session, and that during the session they were at liberty to interact with Chloe as much or as little as they pleased. The basis of the project was described to participating patients in general terms so as not to create undue influence on the results.

The American Veterinary Medical Association's Guidelines for Animal-assisted Interventions was adhered to throughout the duration of the intervention phase. These guidelines include up-to-date vaccination records and routine laboratory testing for participating animals, as well as regular opportunities for rest and play that are separate from the intervention (2024). There is no universally accepted standardized protocol for the implementation of AAT or canine-assisted therapy (CAT), and animal-assisted

interventions (AAI) can include spontaneous canine interaction, structured canine interaction (facilitator-lead), and semi-structured canine interaction (Jones et al., 2019).

The decision was made to utilize spontaneous canine interaction for the implementation phase of the intervention, in order to provide Veterans with enough therapeutic relief to provide a distraction while discussing emotionally triggering subjects, without distracting from the ability to provide an accurate and thorough history to guide and inform psychiatric treatment recommendations. Examples of spontaneous canine interactions that took place during the intervention include petting Chloe at any time during the psychiatric evaluation, provider/handler giving Chloe the trained command to sit in place quietly at the Veteran's feet, provider/trainer placing Chloe on a chair next to the Veteran and allowing Chloe to either spontaneously approach Veterans or rest quietly. The decision to focus on spontaneous canine interaction allowed for the benefits of AAT to extend beyond simply petting Chloe, and also afforded Chloe a greater level of respect for her contributions to each intervention and the project at large.

Project Evaluation

Results

When compared to pre-intervention baseline BMS scores, a notable difference was identified in post-intervention BMS scores. Participants in the intervention included 11 males, 3 females, and 1 transgender female. The average age of participants is 46.8 with a standard deviation of 14.79. The majority of the patients included had comorbid mental health diagnoses with the most prevalent diagnosis being PTSD, seen in 9 patients. The second most prevalent diagnosis was depression, seen in 6 patients, followed by active suicidal ideations in 5 patients.

Improvements were seen in all of the four overarching constructs measured by the BMS, but the most significant improvements were observed in the areas of suicidal urges (38%) and anger (26%). Depression scores were noted to have improved by 25%, and anxiety scores improved by 23%. These results suggest that AAT may have significant applications not just in mental health, but in the acute psychiatric setting.

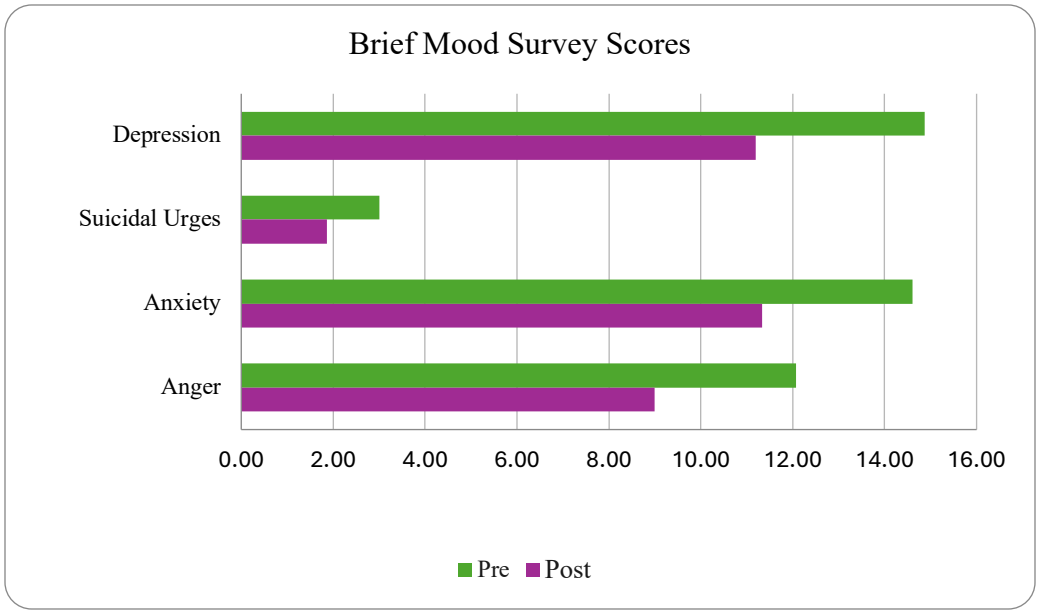
Table 1

Mean Reduction in Brief Mood Survey Scores by Category

	Pre-Intervention	Post-Intervention	Change
Depression	14.87	11.20	-3.67
Suicidal Urges	3.00	1.87	-1.13
Anxiety	14.60	11.33	-3.27
Anger	12.07	9.00	-3.07

Figure 1

Pre and Post-Intervention Brief Mood Survey Scores (n = 15)



Sustainability Plan

In order to determine long-term sustainability of implementing AAT during psychiatric intakes at PEC, several possible methods of implementation were considered for future use. Guidelines published by the therapy dog organization that routinely provides volunteer services for VAMC were reviewed, and the two most practical options for sustained implementation of AAT were a) utilizing volunteer therapy dog handlers (pre-certified handlers) or b) utilizing providers who are interested in having their personal pets become certified.

Due to the sensitive nature of mental health, the most patient-centered and sustainable option, albeit the least cost-effective, was determined to be having a provider at PEC obtain therapy certification for their personal pet. This determination was made considering that having an excess, non-licensed person in the room during a psychiatric intake has the potential to significantly change the dynamic for both the patient and provider, which can interfere with the psychotherapeutic component of treatment. The

ramifications of doing so can potentially outweigh the benefits of AAT entirely. Additionally, having a volunteer handler sit in on a psychiatric intake would be very time-consuming, as volunteer handlers typically only spend a few minutes with each person receiving pet therapy and move around with the dog in order to be able to tend to a greater number of recipients in a shorter amount of time.

Cost-Benefit Analysis

In order to understand the feasibility of having mental health providers obtain certification for their personal pets to participate in AAT, the process of obtaining therapy dog certification for Chloe was carried out exclusively for the purpose of implementing this intervention and associated costs were analyzed. A cost-benefit analysis was conducted to determine quantifiable and non-quantifiable costs associated with therapy dog certification. Because the most prominent reductions in BMS scores were seen in the area of suicidal urges, the average cost of an inpatient mental health admission was factored in as a cost-avoidant program benefit. The return on investment, including the cost of additional obedience training for the animal in order to receive certification plus hourly compensation for the provider, is 894%. The high rate of return is reflected in the low cost of obedience training and certification processes when compared to the high cost of an inpatient mental health admission.

It is equally important to consider the non-quantifiable benefits of this project as well, as the preliminary results of this intervention showed a significant reduction in unfavorable mood symptoms across the board. Relief from experiencing any of these symptoms, even on a short-term basis, is a worthwhile investment to benefit Veterans who have made immeasurable sacrifices to ensure our safety.

Discussion

Strengths and Limitations

The primary strengths of this project include ease of implementation of the intervention and minimal interruption to provider workflow. Because exemplary obedience skills must be demonstrated by the canine in order to obtain certification, it is reasonable to assume that participating animals will cause minimal distraction or interference. Additionally, providers have the ability to utilize the BMS as part of their usual screening and assessment practices during the intake, streamlining the process.

Despite its promising results, certain limitations inherent in the project design were discovered during implementation. The first of these limitations concerns the lack of diversification in both therapy animals and providers used for the intervention phase. Broadening the intervention to include more than one canine with more than one provider who is also certified as the handler to the respective therapy animal would provide a more robust indication of the efficacy of AAT in this setting. Furthermore, there is not a clear way to definitively correlate the reduction in BMS scores to AAT. Improvements in symptoms could also be attributed to establishing mental healthcare and the development of a treatment plan during the intake, as well as the psychotherapy component in each intake.

Implications for Clinical Practice

When incorporated as part of psychiatric evaluations in the acute outpatient setting, AAT can facilitate the therapeutic alliance between patient and provider via the short-term reduction in symptoms of suicidality, anger, depression, and anxiety. This, in turn, creates for a more thorough and accurate evaluation as treatment and diagnosis in

the field of psychiatry differ from other areas of specialty in that it relies on subjective data, most often volunteered by the patient as a historian, to guide future recommendations. Subsequently, what improves the patient's ability to discuss their symptoms also improves the provider's ability to treat the underlying psychopathology. This is especially true in the acute psychiatric outpatient setting, where long-term therapeutic relationships have not been established.

References

American Kennel Club. (2024). *CGC test items*. Canine Good Citizen Test. https://www.akc.org/products-services/training-programs/canine-good-citizen/canine-good-citizen-test-items/

Animal-assisted interventions: Guidelines. American Veterinary Medical Association. (2024). https://www.avma.org/resources-tools/animal-health-and-welfare/service-emotional-support-and-therapy-animals/animal-assisted-interventions-guidelines

Beetz, A., Schöfmann, I., Girgensohn, R., Braas, R., & Ernst, C. (2019). Positive effects of a short-term dog-assisted intervention for soldiers with post-traumatic stress disorder—a pilot study. *Frontiers in Veterinary Science*, *6*. https://doi.org/10.3389/fvets.2019.00170

Bert, F., Gualano, M. R., Camussi, E., Pieve, G., Voglino, G., & Siliquini, R. (2016). Animal Assisted Intervention: A systematic review of benefits and risks. *European Journal of Integrative Medicine*, *8*(5), 695–706. https://doi.org/10.1016/j.eujim.2016.05.005

Furukawa, T. A. (2010). Assessment of mood: Guides for clinicians. *Journal of Psychosomatic Research*, *68*(6), 581–589. https://doi.org/10.1016/j.jpsychores.2009.05.003

Hensley, S. B. D. (2012). *Scale validity: An examination of evidence for factor structure and possible clinical implications*(dissertation). *Scale validity: an examination of evidence for factor structure and possible clinical implications*.

Jones, M. G., Rice, S. M., & Cotton, S. M. (2019). Incorporating animal-assisted therapy in mental health treatments for adolescents: A systematic review of canine assisted psychotherapy. *PLOS ONE*, *14*(1). https://doi.org/10.1371/journal.pone.0210761

Pandey, R. P., Himanshu, Gunjan, Mukherjee, R., & Chang, C.-M. (2024). The role of animal-assisted therapy in enhancing patients' well-being: Systematic study of the qualitative and quantitative evidence. *JMIRx Med*, *5*. https://doi.org/10.2196/51787

Rycroft-Malone, J., & Bucknall, T. (2010). *Models and frameworks for implementing evidence-based practice linking evidence to action*. Wiley-Blackwell.

shoib, S., Hussaini, S. S., Chandradasa, M., Saeed, F., Khan, T., Swed, S., & Lengvenyte, A. (2022). Role of pets and animal assisted therapy in suicide prevention. *Annals of Medicine & Surgery*, *80*. https://doi.org/10.1016/j.amsu.2022.104153

Wolever, R. Q., Webber, D. M., Meunier, J. P., Greeson, J. M., Lausier, E. R., & Gaudet, T. W. (2011, August). *Modifiable disease risk, readiness to change, and*

psychosocial functioning improve with Integrative Medicine Immersion Model. Alternative therapies in health and medicine. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3644485/#R35

Appendix A: Canine Good Citizen Test

Canine Good Citizen Test Items

1. **Accepting a friendly stranger**
   Evaluator approaches and pretends to shake hands with handler (hands 6- 12" apart). Evaluator does not touch dog.

2. **Sitting politely for petting**
   Evaluator pets dog; dog must show no shyness or resentment.

3. **Appearance and grooming**
   Evaluator inspects dog, combs or brushes lightly, examines ears and each front foot.

4. **Out for a walk**
   Handler takes dog for a short walk including right turn, left turn, about turn and stop.

5. **Walking through a crowd**
   Dog and handler walk close to several people; dog may show causal interest but not jump up.

6. **Sit and down on cue/Staying in place**
   Handler shows that dog can do both sit and down, then chooses a position, leaves dog and goes to the end of a 20 ft. line, and returns immediately.

7. **Coming when called**
   With dog still on 20 ft. line from Test 6, handler walks out 10 ft. and calls the dog.

8. **Reaction to another dog**
   Two handlers and dogs approach, pretend to shake hands (hands 6-12" apart), exchange pleasantries, then move on.

9. **Reaction to distractions**
   Distractions are presented; dog may not panic or show aggression.

10. **Supervised separation**
    Handler goes out of sight for 3-min. Dog is held on a 6-ft. leash by an evaluator.

Concluding Essay: Reflections on Growth in Advanced Practice Nursing Role

In pursuing a DNP education, I had hoped to acquire the highest level of understanding in mental health to provide my patients with the best care possible. As I reflect on my experiences in this program, it is clear that my training has prepared me to take care of my patients as well as myself. In mental health especially, practicing from a place of clarity of mind and personal wellness is especially important. I have realized that without the willingness to take my own mental health as seriously as I expect my patients to care for their own, I am not in a position to inspire compassion and recovery. My humanity and my experiences are the greatest gifts that I can provide to those under my care. Nursing is not simply treating a series of symptoms until the disease process underlying subsides. It is a respect for the connection of mind, body, and spirit, and that which science cannot fully explain. My ability to care for others relies first on my ability to care for myself, and to operate from a state of humility. Irrespective of academic achievements, I will forever remain a student of the universe. I believe this has been the most significant lesson gleaned from my academic achievements and will serve as the foundation of my practice.

Appendix A: IRB Approval

February 9, 2024

Rebecca Dorne
Hahn School of Nursing & Health Science

Re: Initial - IRB-2024-177 Implementing Animal Assisted Therapy During Psychiatric Intakes

Dear Rebecca Dorne:

The University of San Diego Institutional Review Board (USD IRB) has rendered the decision below for IRB-2024-177: Implementing Animal Assisted Therapy During Psychiatric Intakes.

Decision: Rely on External IRB. This study may start no earlier than **February 9, 2024**.

Findings: This study relies on the external (Department of Veterans Affairs) IRB decision, stating that the project is non-research. Despite the non-research nature of the project, researchers should still ensure that the activities associated with the project are conducted in compliance with applicable USD policies and ethical standards as well as local, state, and federal regulations.

Researcher Notes: N/A

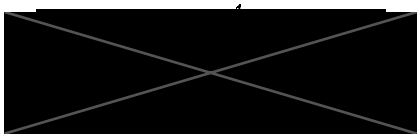
Internal Notes:
The USD IRB requires annual renewal of all active studies reviewed and approved by the IRB. Please submit an application for renewal prior to the annual anniversary date of initial study approval.
If an application for renewal is not received, the study will be administratively closed.

Note: We send IRB correspondence regarding student research to the faculty advisor, who bears the ultimate responsibility for the conduct of the research. We request that the faculty advisor share this correspondence with the student researcher.

Applications for full review must be submitted at least two weeks prior to the next scheduled monthly IRB meeting; see https://www.sandiego.edu/irb/updates/ for specific deadlines. You may

submit an IRB application for expedited or exempt review at any time.

Sincerely,



Truc T. Ngo, PhD
IRB Administrator

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Appendix B: Letter of Support from Clinical Site

DEPARTMENT OF VETERANS AFFAIRS
San Diego VA Healthcare System

Michelle Anjali Singh, D.O.
3350 La Jolla Village Drive
San Diego, CA 92161
michelle.singh@va.gov

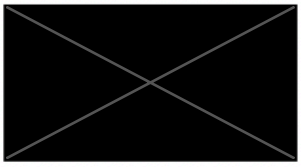
To Whom it May Concern:

I am the Medical Director of the Psychiatric Emergency Clinic at the VA Medical Center in San Diego, CA. I have authorized Rebecca Dorne, who is an NP Student Trainee here through the University of San Diego to conduct her DNP Project entitled, "Implementing Animal Assisted Therapy During Psychiatric Intakes" in this setting with our patient population.

As part of this project Ms. Dorne will have her dog, Chloe, who has been certified as a therapy dog by Love on a Leash (the volunteer organization who regularly provides services for our patients) with her while she is interviewing patients under the supervision of her Clinical Preceptor, Delmore Antonio, PMHNP.

I am excited to support this evidence-based practice improvement initiative and will look forward to reviewing the results.

Sincerely,



Dr. Michelle A. Singh, DO

Medical Director, Psychiatric Emergency Clinic

VA Medical Center San Diego

Appendix C: Poster Abstract and Journal Submission

Submitted to the _____ on _____.

Abstract Title: Implementing Animal-Assisted Therapy During Psychiatric Intakes

Purpose/Aim: The purpose of this evidence-based project is to determine if Animal-Assisted Therapy (AAT) causes improvements in veterans' feelings of anger, anxiety, depression, and suicidality in the acute psychiatric setting during psychiatric evaluations. The project aims to provide veterans with an additional way to experience short-term relief from symptoms while discussing their symptomology with mental health providers.

Background: The prevalence of depression is 20% higher in veterans than in that of the general population. Similarly, it has been shown that 23% of all veterans using VA care have had PTSD at some point in their lives. In the Psychiatric Emergency Clinic (PEC) at the VA in La Jolla, PTSD, depression, anxiety, and substance use disorder are among the most common diagnoses. These patients often struggle with mood lability, anxiety, and avoidance, making it difficult for providers to get a thorough history to guide recommendations. Utilizing animal assisted therapy (AAT) during the appointment may put patients at ease and provide a comforting distraction when discussing emotionally triggering subjects.

Methods: This project evaluates self-reported feelings of anger, anxiety, depression, and suicidal urges in 15 veterans both immediately before and immediately after a psychiatric intake where AAT took place. Using the Brief Mood Survey, veterans rated their symptoms in each category on a scale of 0-5. The Brief Mood Survey (BMS) was utilized to determine baseline pre-intervention mood scores, and a post-intervention survey was administered to determine the efficacy of the intervention when compared to baseline.

Results: The BMS scores, which included 5 subscales per category for depression, anger, and anxiety and 2 subscales for suicidal urges, were used to evaluate the efficacy of AAT during psychiatric intakes. The results showed improvements in post-intervention scores compared to pre-intervention scores in all categories, with the most significant improvements seen in the areas of anger and suicidal urges.

Evaluation: The marked improvements that were observed in all mood categories on the BMS suggest that AAT is effective as a supplemental intervention for utilization during psychiatric intakes in the acute psychiatric setting.

Appendix D: DNP Project Poster

Implementing Animal Assisted Therapy During Psychiatric Intakes

Rebecca Dorne, BSN, RN, CCRN
Joseph Burkard, DNSc, CRNA

University of San Diego
HAHN SCHOOL OF NURSING AND HEALTH SCIENCE
Betty and Bob Beyster Institute for Nursing Research, Advanced Practice, and Simulation

Background

- Animal-assisted therapy (AAT) has become increasingly prevalent in mental healthcare.
- The presence of animals has been proven to reduce stress, anxiety, and depression.
- Research on AAT for depression, anxiety, and post-traumatic stress has demonstrated reduced symptoms, better coping ability, increased motivation, and increased self-esteem.
- Study results on patients suffering from mental health disorders have confirmed that participation in AAT programs decreases symptoms of depression, anxiety, and aggression, promotes a positive mood, and fosters a sense of calmness, particularly before and during stress eliciting situations, including psychotherapeutic and medical treatments or exams.
- Canine-assisted psychotherapy in individuals with PTSD was correlated with a reduction in symptoms of anger and anxiety.

Evidence for Problem

- PTSD affects 23% of U.S. Veterans.
- Depression affects 20% of Veterans.
- Anxiety disorders affect 10% of Veterans.
- Suicidal ideation or attempts occur in 11% of Veterans.
- In 2020, the suicide rate for Veterans was 57% greater than for non-Veteran U.S. adults.
- According to the National Center for PTSD, PTSD is consistently associated with dysregulated anger, and the strongest associations are seen in military samples. Anger in PTSD is associated with aggressive behavior and increased suicide risk.
- PTSD, depression, and anxiety are all associated with mood disturbances and emotional dysregulation.

Evidence-Based Intervention/Benchmark

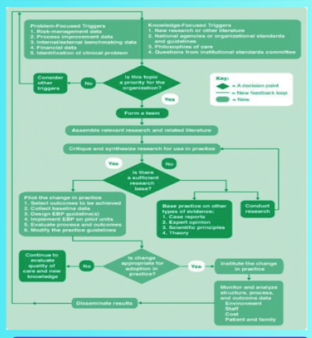
- AAT will be performed on adult patients, ages 18 and older, during psychiatric intakes at the Psychiatric Emergency Clinic (PEC), an acute outpatient psychiatric facility within the VA Medical Center.
- The Brief Mood Survey (BMS) assesses symptoms in four categories: depression, anger, anxiety, and suicidal urges.
- The BMS will be administered to patients immediately before and after a psychiatric intake is conducted utilizing AAT.
- Post-intervention mood scores will be compared to baseline pre-intervention mood scores.

Purpose

- The Primary goal of this project is to determine whether implementing AAT during psychiatric intakes results in improvements in patients' symptoms of depression, anxiety, suicidal urges, and anger.
- Secondary aims include determining if AAT in this setting is a feasible, sustainable intervention for implementation moving forward.

Framework/EBP Model

The Iowa Model was selected for its ability to account for every level of the intervention. The Iowa model is unique in that it emphasizes the use of pilot testing prior to full-scale change implementation.



Project Plan Process

August 2023: Conduct obedience training and pass preliminary obedience test to begin supervised therapy dog visits

October/November 2023: Obtain approval from the VA IRB and University of San Diego IRB

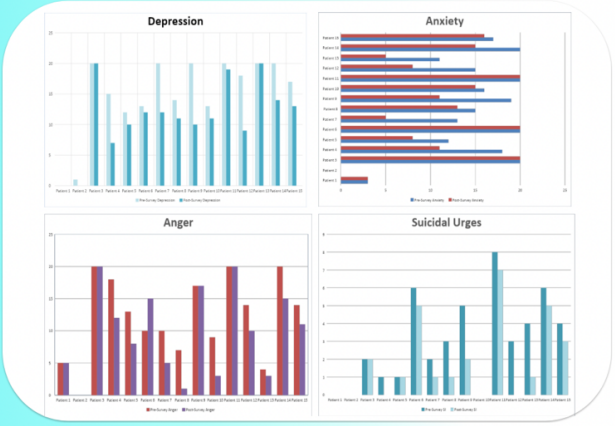
December 2023: Complete 10 supervised therapy dog visits with volunteer therapy dog organization at various schools, hospitals, and institutions. Apply for therapy dog certification.

January 2024: DNP student will perform in-service for PEC staff to educate on screening patients for eligibility and AAT intervention process

February/March 2024: Psychiatric intakes conducted by DNP student at PEC will utilize AAT intervention with BMS administered before and after.

April 2024: Data Analysis and dissemination of findings.

Evaluation Results



Implications for Clinical Practice

- Improvement in clinical assessment and subjective data collection.
- Strengthening of the therapeutic alliance between patient and provider.
- Potential to increase compliance in attendance of follow-up appointments to evaluate efficacy and patient adherence of prescribed treatment regimen.

Cost-Benefit Analysis

Cost Benefit Analysis (CBA) Calculation:
CBA = Program Benefits ÷ Program Costs
CBA = $26,786 ÷ $2,696

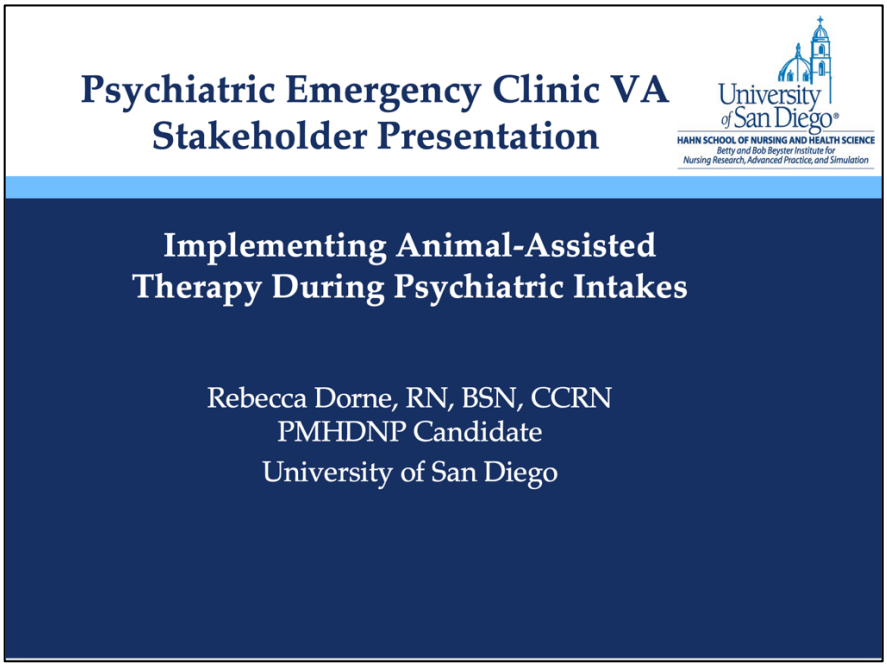
Return on Investment (ROI) Calculation:
ROI = 100 [(Net Program Benefits – Cost of Program) ÷ Program Costs]
ROI = 100 [($26,786 – $2,696) ÷ $2,696]
ROI = 100 [$24,090 ÷ $2,696]
ROI = 100 x $8.94
ROI = 894%

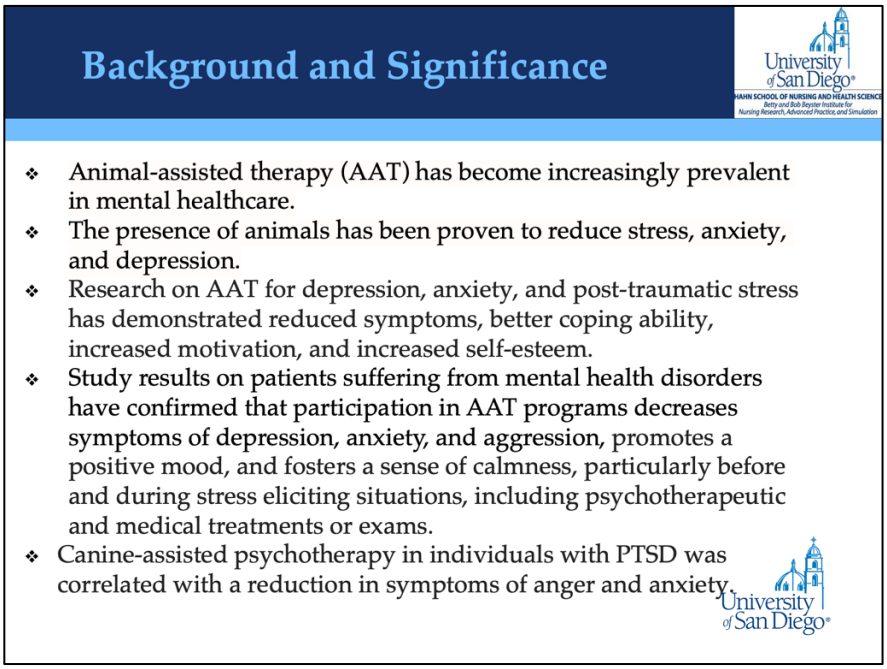
Conclusions

- When implemented regularly into practice, AAT significantly improves Brief Mood Survey scores in veterans undergoing mental health evaluations.
- The largest improvements in pre-intervention survey scores compared to post-intervention survey scores were seen in the areas of anger and suicidal urges, though improvements in scores were seen in all areas.
- There are significant challenges in the sustainability of the intervention. In order to comply with insurance regulations for therapy dogs, the dog must be maintained on a 4-foot leash that is held by the handler at all times. This means that the handler would either be a volunteer who would need to undergo additional HIPAA training and sit in on psychiatric intakes, or a provider who already has a dog with an appropriate temperament for this work would need to go through the process of obtaining therapy dog certification for their personal pet.

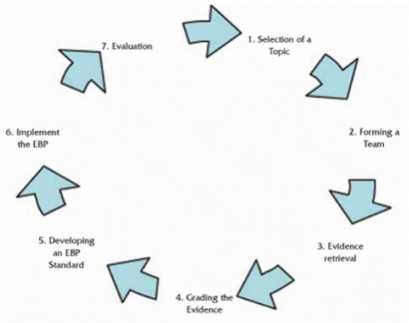
Appendix E: Stakeholder Presentation

Presented to stakeholders at the Psychiatric Emergency Clinic at Jennifer Moreno Department of Veterans Affairs Medical Center, San Diego on April 22, 2024





Framework/EBP Model



The Iowa Model of Evidence-Based Practice

- Application oriented and geared towards improving outcomes in healthcare
- Challenges current practice with knowledge-focused triggers and problem-focused triggers by incorporating research to improve patient care
- Accounts for every level of the intervention including dissemination of results

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PICOT Question

P: In veterans with mental health disorders in the acute psychiatric outpatient setting

I: Does implementing animal-assisted therapy (AAT) during psychiatric intakes

C: Compared to psychiatric intakes without AAT

O: Result in improvements in symptoms of depression, anxiety, anger, and/or suicidal urges on the Brief Mood Survey (BMS)

T: Within the session?

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Implications for Clinical Practice and Sustainability at PEC

- Improvement in clinical assessment and subjective data collection.
- Strengthening of the therapeutic alliance between patient and provider.
- Possible reduction in inpatient admissions for suicidal ideation.
- Potential to increase compliance in attendance of follow-up appointments to evaluate efficacy and patient adherence of prescribed treatment regimen.

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Key References

Animal-assisted interventions: Guidelines. American Veterinary Medical Association. (2024). https://www.avma.org/resources-tools/animal-health-and-welfare/service-emotional-support-and-therapy-animals/animal-assisted-interventions-guidelines

Beetz, A., Schöfmann, I., Girgensohn, R., Braas, R., & Ernst, C. (2019). Positive effects of a short-term dog-assisted intervention for soldiers with post-traumatic stress disorder—a pilot study. *Frontiers in Veterinary Science*, *6*. https://doi.org/10.3389/fvets.2019.00170

Bert, F., Gualano, M. R., Camussi, E., Pieve, G., Voglino, G., & Siliquini, R. (2016). Animal Assisted Intervention: A systematic review of benefits and risks. *European Journal of Integrative Medicine*, *8*(5), 695–706. https://doi.org/10.1016/j.eujim.2016.05.005

Furukawa, T. A. (2010). Assessment of mood: Guides for clinicians. *Journal of Psychosomatic Research*, *68*(6), 581–589. https://doi.org/10.1016/j.jpsychores.2009.05.003

Hensley, S. B. D. (2012). *Scale validity: An examination of evidence for factor structure and possible clinical implications*(dissertation). *Scale validity: an examination of evidence for factor structure and possible clinical implications*.

Jones, M. G., Rice, S. M., & Cotton, S. M. (2019). Incorporating animal-assisted therapy in mental health treatments for adolescents: A systematic review of canine assisted psychotherapy. *PLOS ONE*, *14*(1). https://doi.org/10.1371/journal.pone.0210761

Pandey, R. P., Himanshu, Gunjan, Mukherjee, R., & Chang, C.-M. (2024). The role of animal-assisted therapy in enhancing patients' well-being: Systematic study of the qualitative and quantitative evidence. *JMIRx Med*, *5*. https://doi.org/10.2196/51787

Rycroft-Malone, J., & Bucknall, T. (2010). *Models and frameworks for implementing evidence-based practice linking evidence to action*. Wiley-Blackwell.

shoib, S., Hussaini, S. S., Chandradasa, M., Saeed, F., Khan, T., Swed, S., & Lengvenyte, A. (2022). Role of pets and animal assisted therapy in suicide prevention. *Annals of Medicine & Surgery*, *80*. https://doi.org/10.1016/j.amsu.2022.104153

Wolever, R. Q., Webber, D. M., Meunier, J. P., Greeson, J. M., Lausier, E. R., & Gaudet, T. W. (2011, August). *Modifiable disease risk, readiness to change, and psychosocial functioning improve with Integrative Medicine Immersion Model*. Alternative therapies in health and medicine. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3644485/#R35

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Appendix F: Documentation of Mastery of DNP Program Outcomes

AACN DNP Essentials & NONPF Competencies	USD DNP Program Objectives	Exemplars
DNP Essential I: Scientific Underpinnings for Practice **NONPF: Scientific Foundation Competencies** *The scientific foundation of nursing practice has expanded and includes a focus on both the natural and social sciences including human biology, genomics, science of therapeutics, psychosocial sciences, as well as the science of complex organizational structures. In addition, philosophical, ethical, and historical issues inherent in the development of science create a context for the application of the natural and social sciences.*	**2.** Synthesize nursing and other scientific and ethical theories and concepts to create a foundation for advanced nursing practice.	**Fall 2020** • Used Iowa model to guide pilot program proposal development (DNPC611) • Used middle range theory to propose introduction of severe social withdrawal to DSM-5-TR in EBP proposal (DNPC611) • Created a genogram on the disease transmission of anorexia nervosa and bulimia in "Eating Disorders in Men" (Dorne & Ezhaya, 2020) (DNPC625) **Summer 2022** • Examined and engaged in various reflective practice theories to improve understanding of nursing as a holistic practice (DNPC610) **Fall 2022** • Identified foundational psychological theories and integrated theoretical concepts in the assessment of psychiatric patients (NPTC611) **Summer 2023** • Integrated CBT model into psychotherapeutic care of mental health patients (NPTC613) **Fall 2023** • Trained in multiple therapy models in the domains of individual, couples, and family psychotherapy (NPTC617)

AACN DNP Essentials & NONPF Competencies	USD DNP Program Objectives	Exemplars
DNP Essential II: Organizational & System Leadership for Quality Improvement & Systems Thinking **NONPF: Leadership Competencies/Health Delivery System Competencies** *Advanced nursing practice includes an organizational and systems leadership component that emphasizes practice, ongoing improvement of health outcomes, and ensuring patient safety. Nurses should be prepared with sophisticated expertise in assessing organizations, identifying system's issues, and facilitating organization-wide changes in practice delivery. This also requires political skills, systems thinking, and the business and financial acumen needed for the analysis of practice quality and costs*.	**5.** Design, implement, and evaluate ethical health care delivery systems and information systems that meet societal needs and ensure accountability for quality outcomes.	**Spring 2021** • Assessed use cases for EHRs, EMRs, and PMRs for delivery of care in a variety of healthcare settings (HCIN540) • Evaluated healthcare framework of a nationally recognized hospital and applied Root Cause Analysis to determine strengths and weaknesses in providing patient-centered care (DNPC626) **Summer 2022** • Proposed a business plan for a med spa that expands the role of APRNs to improve health outcomes and establishes a protocol in managing complications from dermal fillers (DNPC653)
DNP Essential III: Clinical Scholarship & Analytical Methods for Evidence-Based Practice **NONPF: Quality Competencies/Practice Inquiry Competencies** *Scholarship and research are the hallmarks of doctoral education. Although basic research is viewed as the first and most essential form of scholarly activity, an enlarged perspective of scholarship has emerged through alternative paradigms that involve more than discovery of new knowledge. These paradigms recognize: (1) the scholarship of discovery and integration "reflects the investigative and synthesizing traditions of academic life"; (2) scholars give meaning to*	**4.** Incorporate research into practice through critical appraisal of existing evidence, evaluating practice outcomes, and developing evidence-based practice guidelines.	**Fall 2020** • Critically appraised evidence on severe social withdrawal to propose new practice guidelines in "Hikikomori and Internet Addiction" (Dorne, 2020) (DNPC611) • Reviewed current literature and best practice to propose new primary care practice standards for screening and prevention of anorexia nervosa and bulimia in "Eating Disorders in Men" (Dorne & Ezhaya, 2020) (DNPC625) **Fall 2022** • Evaluated current guidelines for the

AACN DNP Essentials & NONPF Competencies	USD DNP Program Objectives	Exemplars
isolated facts and make connections across disciplines through the scholarship of integration; and (3) the scholar applies knowledge to solve a problem via the scholarship of application that involves the translation of research into practice and dissemination and integration of new knowledge.		treatment of Schizophrenia and identified gaps in the current standard of care (DNPC622) **Spring 2023** • Proposed EBP project utilizing Animal Assisted Therapy to improve Brief Mood Survey scores in the psychiatric mental health patient population and presented to IRB council (DNPC686) **Fall 2023** • Developed EBP project to implement Animal-Assisted Therapy in acute outpatient psychiatric setting (DNP630) **Spring 2024** • Completed evidence-based practice project, evaluated project outcomes, and presented findings to project site (DNPC630) • Disseminated results of DNP scholarly project via abstract submission to Journal of American Psychiatric Nurse Practitioners Association (DNPC630)
DNP Essential IV: Information Systems/Technology & Patient Care Technology for Improvement & Transformation of Health Care **NONPF: Technology & Information Literacy Competencies**	**7.** Incorporate ethical, regulatory, and legal guidelines in the delivery of health care and the selection, use, and evaluation of information systems and patient care technology.	**Fall 2020** • Certified in ethical research of human subjects through CITI's Biomedical Research training program (DNPC625) **Spring 2021** • Evaluated how regulatory bodies affect healthcare

AACN DNP Essentials & NONPF Competencies	USD DNP Program Objectives	Exemplars
DNP graduates are distinguished by their abilities to use information systems/technology to support and improve patient care and health care systems, and provide leadership within healthcare systems and/or academic settings. Knowledge and skills related to information systems/technology and patient care technology prepare the DNP graduates apply new knowledge, manage individual and aggregate level information, and assess the efficacy of patient care technology appropriate to a specialized area of practice along with the design, selection, and use of information systems/technology to evaluate programs of care, outcomes of care, and care systems. Information systems/technology provide a mechanism to apply budget and productivity tools, practice information systems and decision supports, and web-based learning or intervention tools to support and improve patient care.		information technology via HIMSS TIGER course (HCIN540) **Fall 2022** • Updated and maintained electronic health records for outpatient populations (NPTC611)
DNP Essential V: Health Care Policy for Advocacy in Health Care **NONPF: Policy Competencies** *Health care policy, whether created though governmental actions, institutional decision-making, or organizational standards, creates a framework that can facilitate or impede the delivery of health care services or the ability of the provider to engage in practice to address health care needs. Engagement in the process of policy development is central to creating a health care system that meets the needs of its constituents. Political activism and a commitment to policy development are central elements of DNP practice.*	**3.** Demonstrate leadership in collaborative efforts to develop and implement policies to improve health care delivery and outcomes at all levels of professional practice (institutional, local, state, regional, national, and/or international).	**Spring 2021** • Proposed collaborative effort to develop integrative healthcare model changes to improve health outcomes in a nationally recognized hospital (DNPC626) **Spring 2023** • Analyzed the health policy and legislation put into place by Congressman David Joyce (DNPC 648). • Advocated for transparency in nutritional recommendations through federal policy reform proposal (DNPC648) **Spring 2024**

AACN DNP Essentials & NONPF Competencies	USD DNP Program Objectives	Exemplars
		• Proposed practice change for local outpatient psychiatric practice to reduce inpatient admissions for suicidal ideation (DNPC630)
DNP Essential VI: Interprofessional Collaboration for Improving Patient & Population Health Outcomes **NONPF: Leadership Competencies** *Today's complex, multi-tiered health care environment depends on the contributions of highly skilled and knowledgeable individuals from multiple professions. In order to accomplish the IOM mandate for safe, timely, effective, efficient, equitable, and patient-centered care in this environment, health care professionals must function as highly collaborative teams. DNPs have advanced preparation in the interprofessional dimension of health care that enable them to facilitate collaborative team functioning and overcome impediments to interprofessional practice. DNP graduates have preparation in methods of effective team leadership and are prepared to play a central role in establishing interprofessional teams, participating in the work of the team, and assuming leadership of the team when appropriate.*	**1.** Demonstrate advanced levels of clinical practice within defined ethical, legal, and regulatory parameters in designing, implementing, and evaluating evidence-based, culturally competent therapeutic interventions for individuals or aggregates. **3.** Demonstrate leadership in collaborative efforts to develop and implement policies to improve health care delivery and outcomes at all levels of professional practice (institutional, local, state, regional, national, and/or international).	**Summer 2022** • Proposed business plan to increase scope of practice for APRNs to provide interventions to manage complications of cosmetic procedures in an outpatient setting at a local dermatology practice (DNPC 653) **Spring 2023** • Collaborated with mental health providers at the Psychiatric Emergency Clinic at the VA Medical Center as an NP student trainee (NPTC612) **Fall 2023** • Trained a junior resident at clinical site and collaborated with preceptor to improve processes in inpatient PMHNP student residency program at VAMC (NPTC614)
DNP Essential VII: Clinical Prevention & Population Health for Improving Nation's Health **NONPF: Leadership Competencies** *Consistent with national calls for action and with the longstanding focus on health promotion and disease prevention*	**6.** Employ a population health focus in the design, implementation, and evaluation of health care delivery systems that address primary, secondary, and tertiary levels of prevention.	**Fall 2020** • Reviewed current literature and best practice to propose new primary care practice standards for screening and prevention of anorexia nervosa and bulimia in "Eating Disorders in Men" (Dorne

AACN DNP Essentials & NONPF Competencies	USD DNP Program Objectives	Exemplars
in nursing, the DNP graduate has a foundation in clinical prevention and population health. This foundation enables DNP graduates to analyze epidemiological, biostatistical, occupational, and environmental data in the development, implementation, and evaluation of clinical prevention and population.		& Ezhaya, 2020) (DNPC625) **Spring 2023** • Proposed EBP project utilizing Animal Assisted Therapy to improve Brief Mood Survey scores in the psychiatric mental health patient population and presented to IRB council (DNPC686) **Spring 2024** • Initiated EBP project to improve Brief Mood Survey scores for psychiatric outpatient population (DNP630)
DNP Essential VIII: Advanced Nursing Practice **NONPF: Independent Practice/Ethics Competencies** *The increased knowledge and sophistication of healthcare has resulted in the growth of specialization in nursing in order to ensure competence in these highly complex areas of practice. The reality of the growth of specialization in nursing practice is that no individual can master all advanced roles and the requisite knowledge for enacting these roles. DNP programs provide preparation within distinct specialties that require expertise, advanced knowledge, and mastery in one area of nursing practice. A DNP graduate is prepared to practice in an area of specialization within the larger domain of nursing.*	1. Demonstrate advanced levels of clinical practice within defined ethical, legal, and regulatory parameters in designing, implementing, and evaluating evidence-based, culturally competent therapeutic interventions for individuals or aggregates.	**Summer 2022** • Proposed a business plan for a med spa that expands the role of APRNs to improve health outcomes and establishes a protocol in managing complications from dermal fillers (DNPC653) **Spring 2023** • Provided culturally competent therapeutic care and treatment planning for clients across diverse cultural backgrounds (NPTC613) **Spring 2024** • Implemented EBP project to improve Brief Mood Survey scores for psychiatric outpatient population (DNP630) • Synthesized pharmacological, psychotherapeutic, and holistic treatment interventions to inform

AACN DNP Essentials & NONPF Competencies	USD DNP Program Objectives	Exemplars
		independent practice as a psychiatric-mental health nurse practitioner (NPTC615)