Reducing Test Anxiety in Pre-Licensure Nursing Students With Pet Therapy

Amy M. Richards, PhD, RN
School of Professional Studies, Department of Nursing, Rogers State University, Claremore, OK, USA

Simply watching a goldfish swim or stroking the head of a dog, can promote relaxation and lower blood pressure (Beetz, Uvas-Mobert, Julius & Kotrschal, 2012). In higher education, the importance of achieving success in school increases stress on students prior to taking an examination (American College Health Association, 2014). The purpose of this study was to explore if therapy dogs can reduce pre-test anxiety in nursing students prior to taking a nursing exam.

This study allowed an hour of interaction between first-semester nursing students and therapy dogs that were brought to a college campus. Fifty-six nursing students gave informed consent to volunteer for this study which took place prior to taking a high-stakes examination. Comments made by the students before the study included “I hope that I get to play with the dogs” and “My grade is on the line with this exam. I’ve gotta do good.”

Seven, certified therapy dogs and their handlers from Glad Wags, were invited to engage 30 nursing students in the nursing lab classroom. The dogs and handlers had been acclimated to the designated classroom when the research participants arrived and all were allowed free access within the room. The research participants to dog ratio was four to one.

All of the seven dogs remained on leashes which were controlled by the handler. The research participants were allowed to approach the dogs, pet and play with the dogs, if they chose to do so. No one was forced or coerced to interact with the therapy dogs.

The majority of research participants in Group A were observed playing with the dogs, petting the dogs, and asking questions to the handlers. Because of repeated questions regarding the dogs and their training, the coordinator for the dog handlers demonstrated commands and skills with trained dogs and answered questions.

It was observed that not all the research participants in Group A interacted with the therapy dogs. Approximately 10% of the research participants choose not to interact and were observed sitting quietly, reading, or studying. The classroom environment provided desks and chairs in corners of the room to allow research participants to study quietly away from the dogs, if desired.

Group B, the control group of the study who did not have therapy dogs in their classroom, convened in a separate building in a large spacious classroom. Group B members were allowed to bring study notes, books, and laptop computers to read quietly and with unlimited access to breakfast refreshments. One of the research participants was observed watching an episode of Grey’s Anatomy on their laptop with earphones while another research participant was observed sleeping.

At the completion of the hour-long session, several research participants from Group B shared that they were disappointed to have not been assigned to the group with therapy dogs. After the study concluded, three research participants asked if they could briefly visit with the therapy dogs in the other building. These research participants were lead to the Health Science Building and allowed to briefly interact with the dogs prior to taking their examination.

The data obtained from this study indicates that anxiety was present in the research participants upon arrival to the study. When randomly separated into two groups, the two groups were comparable for
demographic variables, which included gender, age, allergies, antianxiety medication use, and presence of a mental illness.

The mixed model of analysis of variance (ANOVA) was conducted for age and indicated that the main effect for age was not significant. ANOVA was conducted for gender and was not significant with the pre-questionnaire but the primary effect for the within-subjects was significant with PRE_Anxiety, POST_ANXIETY, and level PRE_Gender. Females listed anxiety higher for the pre-questionnaire than males, but both groups showed a decrease in anxiety from PRE to POST. Lastly, ANOVA was conducted for Dog group which indicated that significant differences were present between PRE_Anxiety and POST_ANXIETY. Although both the Dog group and the No Dog group scored a decrease in anxiety, it was of greater significance with the Dog group.

Research has shown that college students have increased anxiety prior to taking an examination. More specifically, it has been researched that nursing students suffer from a higher level of anxiety than other disciplines due to the intensity of content and critical thinking component. Although anxious feelings prior to taking a college exam is expected, other factors such as ill health, personal life crises, or unusual circumstances may influence high anxiety. This may not be accounted for with the BAI and therefore, may be a limitation to the study. Further research may be beneficial in which the BAI is administered during non-examination times in addition to the Pre and Post questionnaires with Dogs.

A second limitation to this study may be the use of only a narrow population of nursing students. It may be difficult to generalize that pet therapy is beneficial with other college majors such as those preparing for an English or art appreciation examination. Due to the application of these results to a small specific population, its generalizability may be poor.

Access to pets who are certified therapy dogs may not be readily available to all institutions of higher education. Despite the frequent use of the term therapy dog in society today, the designated title of Therapy Dogs is only given to those with successful training and certification. The Certified Therapy Dogs used in this study were provided in collaboration with a grass-roots organization which trains service dogs, therapy dogs, and dog obedience classes. Volunteer dogs with their handlers from this organization routinely visit nursing homes, schools, and events in order to provide pet therapy service to the public.

Lastly, further research is needed to explore the impact of pet therapy on student’s examination scores. This would seek further support for the presence of therapy dogs in all areas of academia to assist with test-taking anxiety and increase examination scores. Additional studies are also indicated to explore, more specifically, the level of cortisol in research participants before and after interacting with therapy dogs.

Students exhibit high anxiety in nursing school. Through counselling, active listening, additional resources, and even prayer, the students are supported through many, diverse avenues. It can be painful for an educator to console a student in tears, fearful of failing. It is difficult to observe a conscientious and bright student struggle with test-taking and anxiety. It is a challenge for an educator to enable a failing student maintain their dignity as they withdraw from nursing school due to poor academics.

More can and should be done to ease anxiety in academia. The addition of pet therapy is a low-cost, evidence-based method to decrease anxiety to better assess a student’s academic understanding. The study results from this project are significant in supporting pet therapy use to decrease anxiety in pre-licensure nursing students prior to taking an examination.

The results of this study imply that pet therapy is beneficial in decreasing anxiety in nursing students prior to taking a nursing school examination. With set examination dates made well into the future, the scheduling of therapy dogs to visit nursing students can be made in advance with Certified Therapy Dogs. Simply allowing a nursing student to interact with a therapy dog prior to taking an exam may lessen the test anxiety for the student which may allow for an improved, test-taking experience.
Title:
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References:


Abstract Summary:
Fingers tapping, hearts pounding, sweat on the brow, and heads bowed in prayer are common manifestations of students waiting to take an exam. The fear of failure is the basis of test anxiety (Anxiety and Depression Association, 2015). Pet therapy may reduce test anxiety in pre-licensure nursing students.

Content Outline:
Introduction

1. The anxiety experienced by some nursing students when testing is so immense that it may disrupt their ability to accurately demonstrate their knowledge (Prato & Yucha, 2013). This may place them at risk for poor academic performance (Prato & Yucha, 2013). By reducing test anxiety, an educator may be able to better test a student's knowledge and propel more potential nurses on to success.

2. There are known strategies to address anxiety and many of them are non-pharmacological (Anxiety and Depression Association of America, 2015). From visual imagery to consuming a diet high in protein the morning of an exam, experts endorse supportive measures (Anxiety and Depression Association of America, 2015). Additional methods that can assist to decrease
anxiety include meditation, self-imagery, and yoga exercises (HelpGuide, 2015). Another strategy that has been used for centuries but may be viewed as unconventional is pet therapy.

Problem 1

The American College Health Association (ACHA, 2015) conducted a survey of college students titled 2015 National College Health Assessment survey. The findings reported that almost 16% of college students, or approximately one in six students, had been treated for or diagnosed with anxiety. The survey further revealed that 21.9% of students reported that anxiety had affected their academic performance within the previous 12 months. This negative effect was defined as receiving a lower grade on an exam or assignment, receiving an incomplete grade, or dropping a course altogether (American College Health Association, 2014).

1. Anxiety negatively effects student success on examinations
2. Poor scores on college examinations may lead to lack of success in college

Problem 2

By improving concentration, reducing muscle tension and boosting confidence, relaxation decreases anxiety (Mayo Clinic, 2015). The use of an animal has been studied as a method to promote relaxation (Beetz, Uvas-Mobert, Julius & Kotrschal, 2012). A more relaxed and less stressed student may have improved concentration when taking a test (Anxiety and Depression Association of America, 2015). Improved concentration during testing may result in improved academic performance. For nursing students, improved academic performance in testing may allow progression through nursing school and ultimately, meeting the goal of graduation.

1. Welcoming therapy dogs on college campuses requires authorization
2. Student interaction with pet therapy, specifically therapy dogs, may decrease test anxiety if the interaction occurs prior to taking an examination

Research Study

A research study was designed to evaluate the effectiveness of pet therapy on pre-licensure nursing students prior to taking a nursing school examination. Nursing students in their first semester of a four-semester associate degree program were invited to participate in the study. A total of 56 students met the criteria for the study, received information regarding the research study and submitted a consent to participate. Students were divided into an experimental group which interacted with therapy dogs for 60 minutes prior to an exam and a control group which studied quietly for 60 minutes prior to taking an exam. After being randomly separated into two groups, the Beck’s Anxiety Inventory (BAI) questionnaire was completed by each research participant upon entry to the assigned research room and upon leaving the research study room. Descriptive analyses were used to study the research data that was obtained from these completed BAI. This technique was chosen to better understand the effect of pet therapy, if any, on pre-examination anxiety. One-Way Analysis of Variance was used to examine the differences among dependent variables and between groups of an independent variable.

1. The level of anxiety in the experimental group had a significant decrease in anxiety following a 60-minute interaction with therapy dogs.
2. The level of anxiety in the control group had a decrease in anxiety which was assessed to be an effect of studying quietly in a classroom, a reflection of Roger’s Science of Unitary Human Beings (1970).

Students exhibit high anxiety in nursing school. Through counselling, active listening, additional resources, and even prayer, the students are supported through many, diverse avenues. It can be painful for an educator to console a student in tears, fearful of failing. It is difficult to observe a conscientious and
bright student struggle with test-taking and anxiety. It is a challenge for an educator to enable a failing student maintain their dignity as they withdraw from nursing school due to poor academics. More can and should be done to ease anxiety in academia. The addition of pet therapy is a low-cost, evidence-based method to decrease anxiety to better assess a student’s academic understanding. The study results from this project are significant in supporting pet therapy use to decrease anxiety in pre-licensure nursing students prior to taking an examination.

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First Primary Presenting Author

**Primary Presenting Author**
Amy M. Richards, PhD, RN
Rogers State University
School of Professional Studies, Department of Nursing
Assistant Professor of Nursing
Claremore OK
USA

**Professional Experience:** I have been a nurse for over 30 years and a nursing instructor for six. I recently completed my doctoral degree, receiving my PhD from Kramer School of Nursing at Oklahoma City University, Oklahoma. I am RN-BC in Psychiatry-Mental Health.

**Author Summary:** Amy Richards has been a RN for over thirty years. Received her BSN from the University of Oklahoma, MSN from Northeastern State University in Tahlequah, OK and PHD from Kramer School of Nursing at Oklahoma City University. She is a BC in Psychiatric Mental Health and is an advocate for those with mental illness. She is a volunteer CASA worker, active with a mental health non-profit and a volunteer with the OK Medical Reserve Corp.