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Canine Motivation in Pediatric CVICU Patients

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This potentially life-saving therapy stemmed from the desire to find a way to decrease the mortality rate of children with chronic cardiac conditions. According to Almond et al the mortality rate for children under the age of 18 out of a group of 3098 with chronic cardiac conditions included; 17% dying before ever receiving transplantation, 63% receiving transplants, 8% recovering, and 12% remaining listed. There are many surgeries and corrections to defects that can be made, however alternative therapies are becoming more and more popular in the healthcare setting as a means of supplementing medical procedures.

This study explores the use of animal-assisted therapy as an additional form of therapy for pediatric cardiac patients. The study begins with specific criteria selecting the patients; they must be between the ages of six and nineteen, diagnosed with a chronic cardiac condition and in need of heart transplantation in the Arkansas Children's Hospital CVICU. Participants experience two different sessions, one with the canine and one without. The sessions are randomized for each individual, so the participant never knows which session will come first. Before the canine session the participant is encouraged to groom the canine and play games in order to form a bond. For both the canine session and the session without the canine, the team is responsible for measuring the blood pressure and respirations prior to beginning, the distance walked in 30 minutes, and the patient's heart rate and pulse oximetry every 2 minutes throughout each walk. Each session begins once the patient crosses the threshold of their room. After each session, the team presents the participant with a quiz asking about the patient's pain and anxiety levels throughout their walk via 1-10 scales, 1 being low anxiety and pain and 10 being the highest level of anxiety and pain. At the end of the canine session, the patient receives a picture of him/her with the canine and a certificate of participation that thanks them for their cooperation in the study.

To determine the effectiveness of therapy on the heart itself, we are looking at cardiopulmonary pressures, neuro-hormone levels, pain, and anxiety levels. The results of a study done at UCLA showed that each of the above levels were significantly lower than patients who were visited by a volunteer only or received usual care and rest (Cole et. Al 582-583). The hope is that the patients' levels trend down with the canine, as apposed to their typical high vital sign measures without the canine.

We not only are looking at the physical aspects that improve with having the canine present, but the patient's social and emotional wellbeing. A study from the Journal of Pediatric Nursing states that "35% of the children and 48% of the parents reported that the presence of the dogs helped normalize their hospitalization experience, and 61% of the children and 40% of parents thought that the pet visitations were a pleasant distraction from the reality of hospitalization" (Wu et al 33). After being in the hospital for years, many of these young patients lose the feeling of being a normal kid. Bringing a dog for the child to groom, play with and then walk allows for a sense of normalcy. Another study used for reference is one done at the Phoenix Children's Hospital called "Petsmart Paws Can Heal Animal-Assisted Therapy". This study indicated that there was a 96% increase in overall mood after participating in animal assisted therapy. The patients we are working with are awaiting life-saving heart transplant surgery. According to "Caring for children awaiting heart transplantation: psychosocial implications" from the textbook *Pediatric Nursing* by L.B. Hanton the patient and family may experience increased, "feelings of isolation, depression, boredom, hopelessness, helplessness, exhaustion, lack of privacy, financial burdens, role strain, and family disruption" (Hanton 215). They are agonizing through a wait period, so presenting both the patient and family with a healthy distraction that will potentially help their situation is a win-win for both emotional and physical well-being.

The team conducting this project consists of researchers, nurses, doctors, two students, and a Child Life Specialist. Many children's hospitals are beginning to adopt the mindset that kids with chronic conditions

who are stuck inside the hospital walls need more than just a playground on the hospital grounds to feel like a "normal" kid. There is now a push for individuals who are play specialists to aid the sick children. Play is how children grow, learn and develop. Years ago, play used to consist of hospital volunteers that would come in and play with children in playrooms. It has expanded even further into a discipline that involves connecting with the child on a psychological level to help them understand why they are hospitalized and what they will face. According to, *Play for Sick Children: Play Specialists in Hospitals and Beyond* by Catherine Hubbuck, "when supporting a child through a difficult medical procedure, the play specialist's aim should therefore always be in the first instance to give adequate, accurate and clear information to the child, and then to follow this up with appropriate and effective emotional support, including distraction during the procedures" (Hubbuck 160). The Child Life Specialists at Arkansas Children's Hospital are well trained and very helpful when it comes to daily life for the kids. The team of Specialists immediately grew passionate about the idea of using canines to connect with the children. The project has continued to grow in its popularity with not only the medical professionals and Child Life Specialists, but also with the young patients themselves.

Title:

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Keywords:

Canine, Pediatric CVICU and Rehabilitation Therapy

References:

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Abstract Summary:

Partnering with researchers at Arkansas Children's Hospital, I found the question for my Honors College Capstone Project that I was attempting to answer; Does the use of canine therapy aid in the short term cardiovascular health of patients on the heart transplant list?

Content Outline:

- Introduction to the study
 - Describe the study itself
 - Compare to similar studies
 - Phoenix Children's Hospital study (Source: Zeblisky)
 - UCLA (Source: Cole)
 - Journal of Pediatric Nursing study (Source: Wu)
 - Requirements to work in the study
- Background of the study
 - Purpose and Need for the study (using 8 scholarly sources as supporting evidence- Abate, Bode, Coakley, Simeone, Sobo, Almond, Hubbuck, Goddard and Gilmer)
 - Question to answer-Does the use of canine therapy aid in the short term cardiovascular health of patients on the heart transplant list?
 - Explain the sessions
 - Criteria to be enlisted in the study
 - Forms to fill out for the Animal-Assisted Therapy session
 - Forms to fill out for the Non Animal-Assisted Therapy session
 - Data collection-specifically what is measured (Sources: Braun and Davies)
 - Pulse oximetry
 - Pulse
 - Blood Pressure
 - Respirations
 - Distance walked
 - Pain and anxiety levels
 - Explain the post forms after each session (Sources: Chan, Keck, Merkel, Reynolds, Wong)
 - Pain Scale: Faces scale or 1-10
 - Anxiety scale: 1-10
 - Certificate and Picture for the participant
- How we prepared for the study

- Learning about animal therapy itself (Sources: Bardil, Caprilly, Chur-Hansen, Snipelisky, McCardle, Taylor)
- Researching Common Conditions (Sources: McAllister)
- How to effectively empathize with patients (Sources: Kaminsky, Marino, Tsai, Varni, Hanton, Masi and Brovedani, Elwell)
- Experience with the children-Narrative of the sessions conducted so far
- Overall what we learned from our time observing the study
 - How this experience will help our future careers (Source: Raat)
- What could have helped the study to gain more attention/patients (Source: Tacher)
- Conclusion

First Primary Presenting Author

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Professional Experience: I have been a Student Nurse at UCA for two years and am preparing to complete my third and final year. I will graduate with a BSN and a minor in Honors Interdisciplinary studies. I will have finished my Honors Thesis-the work for which I have been nominated-by Winter 2018. I was recently hired as a Patient Care Technician May 2018 at Baptist Medical Center-North Little Rock.

Author Summary: Madeline feels alternate therapies are the key to caring for a patient in a holistic and complete way. Upon graduating she hopes to bring her knowledge, leadership, and passion to the field and continue to research and apply interventions that will improve the lives of her patients both physically and mentally. Nursing is about the details, the small things that can make big changes in a patient's life.