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An Unlikely Healing Hero: The Power of Dog Therapy

I. INTRODUCTION

There are few feelings that compare to being in the presence of a tail-wagging, happy-go-lucky dog. In my transition to college, one thing I have particularly missed about home are my two dogs, Zoey and Zeus. After a long day at school, nothing would make me happier than my dogs scrambling to the door as fast as they could to say hi and jump up into my lap. When I am with my dogs, all of my worries go away and a huge weight is lifted off my shoulders. The feeling is almost indescribable, and my dogs always know when I could use some down time with them to be carefree at least for a little while. I knew I had to get involved in UPup if I could grant this incredible feeling to people who probably need it the most; cancer patients receiving chemotherapy. I understand the incredibly difficult journey cancer patients go through after watching my older sister Kendall go through acute lymphoblastic leukemia for two years during high school. Whenever I would visit her in the hospital, she would always tell me about the therapy dogs that visited her with an enormous smile on her face. I chose to work with UPup because if there's one thing that can brighten someone's day it's a dog. Because of this, it is becoming an increasingly emerging form of therapy in hospitals as part of a patient's treatment plan. UPup's mission as an organization is to raise awareness of service dog training, behavior, etiquette, and fraud (Orgsync). The work that UPup aims to accomplish is done in partnership with Canine Companions for Independence, a third-party national organization overseeing our branches' efforts on training puppies for service.

In the field of research on this subject, many researchers' aim is to investigate and capture how contact with therapy dogs can impact a diverse range of patients physically and psychologically. Because of this, most researchers have analyzed quantitative as well as qualitative research to back their claims. The group of patients studied has ranged from those with severe mental illnesses such as Depression and Bipolar Disorder, pediatrics, families of a patient, and even hospital staff coping with the daily stresses of their job. Most corroborate widely accepted claims that the use of a therapy dog is incredibly important for patient morale while going through a difficult period of their life. With a range of chemical indicators, qualitative social impacts, and testing among a diverse range of people, their success has been theorized in these data. In my own research and experiences, all of these factors funnel into creating the crucial network of a community among many levels of personnel, patients, and family in order to create a more supportive atmosphere and likely a better prognosis.

II. LITERATURE REVIEW

SOCIAL IMPACT

If a patient is less fearful of treatment, better socialized, and more confident, this creates positive conditions under which they can build rapport with hospital staff, and persevere through demanding treatment plans. Researchers like **Cynthia Chandler** have primarily focused on examining the extensive social impacts as a result of AAT (Animal- Assisted Therapy), finding that dogs were able to serve as a bridge in creating a strong positive relationship with doctors and counselors. Crucial to these relationships is creating a foundation in trust to allow a feeling of safety and greater self confidence in patients (Chandler 355). This is particularly important in medical fields that require a strong sense of will to prevail through difficult treatment. Other

studies such as **Christine Hawkins's** corroborate these claims, even going so far as to call this extensive socialization process a “catalyst” in a treatment plan (Hawkins 1). **Susan McCullough's** research would corroborate this claim, using the dog as an active treatment plan to use on psychiatric patients if they have “isolated” themselves (McCullough 35). The hospital studied would use the dog to improve the patient's social interaction. In addition to facilitating social interaction, her research has also supported a 37% reduction of fear in patients. Building on her research, **McCullough** empathizes with patients, understanding that the dog can serve as a much needed break from doctors poking and prodding at them constantly, administering medicines, and demanding certain activities (McCullough 37). When socializing with the dog, the patient can truly step out of their hectic world and be relieved of these pressures. A limitation of this study is that it mainly focuses on one patient, and does not appear to be a widely applicable study. **Anna Goddard's** research examined a decrease in anxiety while working with therapy dogs, which she claims is crucial in reducing loneliness, especially in her pediatric patients (Goddard 65). Many of these children are stripped of their daily interactions with a large class of students and other children their age to the confines of a solitary hospital room. Her work has also contributed to the study of breaking communication barriers with hospital staff when with the therapy dogs, as it easily facilitates conversation. She has built on these communication skills more specifically, noting that children who do participate in some form of dog therapy have increased attention skills, self-esteem, and reduced anxiety. She does, however, lack an in-depth explanation as to how she was able to measure these qualities. All of these qualities may contribute to the increased success in schoolwork while undergoing treatment in children by their parents, The American Humane Association (AHA) notes.

Their study analyzed patients in a control group devoid of pet therapy, and those who did participate. Their research would question other work about decreased anxiety, as their data indicated that “disease-related worry and anxiety among patients who had regular visits from therapy dogs remained stable, while children in the control group became significantly more worried over the course of the study” (AHA 2). There is a stabilization of anxiety without any tangible reduction.

CHEMICAL EXPLANATIONS

While some might disagree on the social impact of therapy dogs, there exists a range of more scientific explanations for qualitative impacts has been studied by researchers that covers hormonal, blood pressure, and heart rate measures to support an overall better prepared patient. **MCullough** studies a significant drop in cortisol, a stress hormone (MCullough 35). This has far reaching implications including a decreased heart rate, lower blood pressure and thus allows a patient to become almost instantly more calm. The **AHA** sought to bridge this gap with heavier focus on scientific research, but came up short in their findings, only finding those who visited with the dog remained consistently worried versus worsening over time. **Julia Dorfman’s** research on geriatric care of cancer patients also noted an decrease in stress through measures of significantly lowered blood pressure, coupled with an increase in ‘happy’ hormones in the blood, namely oxytocin, beta-endorphin, prolactin, and dopamine after a short interaction with a therapy dog (Dorfman 151). This allows patients over time to become more resistant to stresses accompanied by their disease and treatment by developing a lowered heart rate and systolic and

diastolic blood pressures. Blood pressure measures refer to the amount of pressure in your arteries during the contraction of the heart muscle, according to **Healthline**.

DIVERSIFICATION OF APPLICABLE PATIENT

These measures of relaxation and a suppression of stress and fear has proven effective on a wide range of people. In these sources, there is a diversification of the person impacted by the dog therapy.

Goals

Anna Goddard focuses on improving specific physical goals with pediatric patients whose treatments warrant less mobility, and in some cases require introducing a wheelchair to get around. She broke up her areas of goals for patients into three areas; physical, mental health related, and motivational ones. Physical goals include improving fine motor skills, wheelchair skills, or balancing while standing (Goddard 66). Mental health goals are related to the ubiquitous findings among other studies such as better communication, and a more calm, positive demeanor. However, she builds on this research noticing more nuanced goals being reached through dog therapy such as increased attention skills, recreation skills, self-esteem, which are all factors contributing to the reduction of feelings of loneliness or anxiety in a pediatric cancer patient. Her motivational goals focused on improving a child's ability to work with others, and willingness to participate in group activities. If a child is able to do so with a dog, they can easily form connections with other pediatric patients, and this goal will in turn be of the benefit to many other areas such as emotional well being.

Family and Medical Staff

While **Goddard** focuses more closely on pediatric patients, **McCullough** analyzes the impacts on psychiatric patients as well as hospital staff. **McCullough's** evidence includes cases of depression, bipolar disorders, or other psychotic disorders in which they exhibited a vast reduction in patient's fear in going into treatment. Building off of **Goddard's** research is the **American Humane Association**, being the first controlled clinical trial to conduct an in-depth study measuring the effects of animal-assisted therapy among children suffering blood cancers, namely leukemia. Their findings indicated that the therapy yielded improved communication between families, medical staff, and patients, which they claim will lead to better medical care. Another benefit is an increased emotional functioning ability, related to their lowered stress as a result of dog therapy. It looks like the dogs parallel these effects on themselves as well, with the AHA noting the dogs' cortisol levels were lowered as well after participating in therapy interactions with patients.

III. METHODS

In conducting my research, I wanted to make certain that I kept a broad scope as I have struggled to have much real hands-on experience with my organization. In doing so, one means I was able to accomplish this was to not pigeon-hole into one age demographic, type of cancer, or other medical history. With this in mind, I was able to stumble across some fascinating research even extending beyond cancer patients, but the impact on their family, hospital staff, even the dogs themselves.

Bridging off of my limited experience from the developing organization, I focused on using two interviews to stand in as my primary research in the field. Naturally, I looked to our clubs leader

and co-president Emily Kalbac to share her thoughts and experiences after three years in UPup, since its founding on campus. The other interview I conducted was with my Aunt Kim, who has been taking two of her dogs, Millie and Pards, to participate in dog therapy at her local hospital for the past seven years. Her vast knowledge in working with her dogs in the hospital definitely came across, and she was able to fill in some gaps in my research, particularly in the visible impacts on patients and the creation of community once a dog is introduced into a hospital room. I created semi-structured interviews with both women, creating a series of questions that was sent in advance to allow them to gather their thoughts, and then followed up in person, which was recorded and transcribed.

Once I was able to get into the Lennar Center with my organization, I created a note on my cell phone to detail the experiences I had and in order to remember minute details. With everyone we came in contact with, I made sure to record what emotions or mood changes I noticed and well as if they had begun to communicate more or with others they had not been before we entered. We travelled with Colin on a leash and two other volunteers around the waiting rooms, lobby, and chemotherapy treatment rooms to visit people from all areas of the hospital. Each interaction typically lasted between one and eight minutes.

IV. Discussion

COMMUNITY

A particular avenue I did not expect to venture down but proved very important was in regard to the issue of establishing a relationship between patients and doctors, as well as patients with others while going through treatment. Often, visitors, family members, and others in the

community are unsure what to say to a clearly troubled cancer patient. This was even discussed in our first Upup general body meeting, in being careful to not underestimate a patients' hardships, while also not discouraging them, and providing them with the distraction of playing with a dog. Research has supported that the dog easily and naturally facilitates positive conversation, that is not presumptuous and avoids the awkward language of not being sure how to address the patient. This translated into Susan McCulloughs research, finding that a sample of healthcare professionals had a "significant drop" in the cortisol stress hormone after a five minute interaction with a therapy dog. This relaxing effect is long-lasting as well, continuing to lower cortisol 45 minutes after the interaction. This hormone is produced in the adrenal gland during stress and thus its presence was measured by testing each subject's saliva after an interaction with the dog. This can work to break communication barriers between patients and their doctors and support networks, and has been demonstrated through both research and anecdotal reports. With doctors and nurses working incredibly long hours with diseased patients, it can be difficult to stay upbeat and provide emotional support. Thus, the dog comes in to fill this void, and allows both patient and doctor to go into sessions together, calm and clear-minded, ready to take on their shared journey.

In my interviews with Kim Crosby, her experiences of the years taking her dogs in supported this idea, claiming "a therapy dog entering any floor of the Hospital immediately draws people into conversation [...] So often, Prior to Pards entering the floor there is only silence." (Appendix A) Crosby claimed this to be especially true in the open-floor plan areas like the Chemotherapy IV infusion and waiting rooms. When taking Colin into the Lennar Center, I noticed this effect most notably in the waiting room as patients emerged out of individual

treatment or consultation rooms. When we first visited the waiting room and made our way through various individual visits, a mother and young daughter spent time talking to myself and the other volunteers about Colins' odd habit of lying down to rub his head around their feet. Overhearing this conversation, others jumped in attempting to figure out this puzzle. The patients asked secretaries, nurses, doctors, family-members in the room for their input. As a patient we had previously visited emerged into the waiting room, she jumped in to hypothesize this must be due to the cannabis oil on her feet as a form of treatment. Our new huddle of patients and people from all roles of the hospital and support networks were gathered, laughing about Colin's apparent newfound love for cannabis oil-covered feet. Soon enough, a running joke about a therapy dog high on his patients' medical supply seemed to reverberate a roar of laughter through the waiting room.

From there, patients who had been sitting in silence next to each other were sharing photos of their dogs at home, and inevitably moved physically closer together to view these. The flow of conversation became very natural and what was once a room randomly strewn with scattered strangers became its own flock of new connections. These observations were backed by the Yale University Innovations Lab study conducted by researcher Molly Crossman referred to me by Crosby, as her lab Pards was studied to create her findings. Two of Crossman's theories are observed in this encounter, what she refers to as Emotional contagion and regulation. In these hypotheses, Crossman theorizes that just as viruses are passed from person to person through contact, so can emotions. She claims the most effective means in which this occurs is in facial mimicry, such as subconsciously smiling back when someone else smiles at you. This has been demonstrated to carry into dog therapy in that a human being will become visibly happier in the same vein when a dog approaches them with their tail wagging in excitement to see them.

Crossman attributes this to indirectly lead to “distress-reducing effects,” prominent in the literature such as evidence of reduced anxiety and cortisol. The emotion regulation theory refers to “a person's automatic and purposeful use of strategies to influence their emotions,” according to Crossman (Crossman 569). This can be particularly cogent with dog therapy because working to keep emotions in check as a coping strategy facilitated by a distraction, such as a dog. Another effective component of this regulation is the recalling of positive memories for patients, which was exhibited among the group at the Lennar Center when beginning to share their own stories about their pets, or continuing to joke about Colin’s foot fetish. This will foster a reappraisal among patients in which they are able to reassess their notions and associations with the hospital as solely negative to a redefined positive version, furthering the causes of emotion regulation and therefore contagion. Under these conditions, patients can and do become immediately engaged and want to participate in conversation. When I visited the Center, even down to the valet men at the door had a bag of dog treats stored in their desk, ready to play with Colin and ask him to perform tricks.

LONG TERM IMPACT

All of these factors contribute to a reduction of anxiety specifically regarding treatment was noted by Crosby to have the most far-reaching and long term effects when she would align her therapy to accompany a patient’s chemotherapy schedule. She noticed these patients, sometimes shuddering even at the thought of undergoing a slightly harder regimen of chemotherapy face less apprehension knowing they would have a dog by their side through it. Living in the loneliness of a hospital room can be less palpable and daunting when resting, but going through treatment “knowing you won’t be alone brings a wash of calm,” according to Crosby. Emily

Kalbac, UPup's president also attested to this effect, citing instances of patients recalling happy memories sharing their stories of dogs they've had, and that she noticed during this communication "you can see that immediately, they're happier. Usually when we leave there-- you might have seen people will talk about their dogs and they're like "oh my gosh, I used to have a dog like this!" or they start thinking about other times, and usually it's a happy time in their life that they had, like "oh my gosh I remember when I got my puppy!" (Appendix B) In analyzing the long-term effects of dog therapy on patients, it is crucial to provide the routine of therapy dog visits once instated, as they provide something to cling to in the face of life-altering changes to their body, relationships, and emotional well-being. "Everything else in their life could be changing but in that moment they have something that they remember and can hold onto, so I think that would be more long-term," Kalbac said. Another valuable aspect provided by dog therapy, as evidenced through my interview with Kalbac is the critical importance of instilling hope in patients. She referred to this as a branch off of long-term improvements in patients participating in dog therapy as a crucial part of the healing process, even going to far as declaring it, in many circumstances, "one of the number one indicators of whether or not someone will have a good prognosis."

DIVERSITY OF THOSE APPLICABLE FOR THERAPY

Building off of McCullough's research on cancer patients also struggling with psychiatric issues, such as cognitive disorders and mental illnesses, Crosby recalled instances in which these patients were able to gain this same sense of community often rare and difficult for them to achieve through dog therapy. This often followed the narrative of Crossman's emotion regulation in working to recall positive memories, such as in an Alzheimer's patient Crosby visited at Yale.

According to Crosby, patients that were suffering Alzheimer's or dementia and have not talked in weeks have talked or tried to connect with herself and her therapy dog Pards. One particular encounter stood out to her when she visited the patient that hadn't talked all week according to family and hospital staff, but with Pards in the room he was able to remember and voice memories of his Lab on his sailboat from the very distant past. Kalbac further expands her pool of patients attune to this form of therapy to include the vast majority of those at the Lennar Center's heavy Spanish speaking population that knows little English. Because many patients coping with cancer treatments face lonely days spent mostly waiting for treatment, there is a natural inclination to gravitate towards the dog. "To be able to have a dog that's kind of like a translator almost is great," Kalbac said. She recounted simply motioning to the dog and not having any issue of a language barrier because the patient is able to simply feel better happily petting the dog, communicating largely through facial and body expression of pleasure. "Let the dog be that mediator," Kalbac added. This feature also contributes to the growing body of research citing that many times patients are mentally, and more specifically emotionally exhausted and actively dislike volunteers asking to communicate with them, and thus, not granting their desired effect. With dog therapy, the dog acts as an emotional expert, able to read and assess these needs without requiring the often draining nature of talking to volunteers for extended periods of time.

One area Kalbac seemed to limit those patients best conditioned to interact with Colin for the best results were produced "at least for people who like animals, who like dogs." Certainly this would not be something our club could do out of respect of the patients. Crosby supported this notion as well, claiming the "bottom line on dog therapy seems to be if you are receptive to dogs." On this note, it might be an interesting area to add to the research and the literature

whether or not people with preconceived notions against dogs or animals in general were able to overcome this with experiencing it themselves.

STAFF AND FAMILY IMPACT

From what I observed among hospital staff and family members when interacting with Colin and I at Lennar, they were always advocating for their patient to come interact. An example of this included when a wife of a patient and her daughter saw us come into the waiting room and stopped us to ask that we visit her husband down the hall receiving chemotherapy treatment. They were quick to see an opportunity for their loved ones to be uplifted by the helplessly goofy nature of Colin that day. However, in constantly putting on a strong face for the patient they are tasked with being a support network for, their needs are often forgotten. From my experience volunteering at the Lennar Center, most of the time patients are in their treatment rooms surrounded by at least a few family members, rarely just alone. According to Kalbac, “sometimes they need a break and to feel like they’re being supported because they’re usually trying to be so strong for their family member or friend or whoever they’re taking care of.” She explained that in her experience, even when patients didn’t express a desire to interact with Colin, their family members did, and were able to immensely benefit.

In terms of hospital staff, many got up from their perched desks to sit down and give Colin a pat. I watched them grin from ear to ear, asking that we bring him in more often. Many of them upon seeing Colin would call out to other staff members to make sure everyone was able to reap the reward of stepping out of their harsh reality for a moment to unwind with him. I noticed this myself when passing by a consultation room, a doctor sitting with a cancer patient asking if we can come in so she could see Colin. Consultation doctors are typically faced with the added hardship of having to break difficult news to patients and their family, and explain

what kinds of treatments they entail, alongside all of the incredibly painful side effects. “The prognosis for patients on these floors is dire and the doctors/nurses often have nothing left to offer the patient or the worried, loving family members,” according to Crosby. “When there are no words left to be said, a dog hug can fill that void,” she said. According to Kalbac, there even seems to be hospital protocol that facilitates a deeper connection with patients through the process of getting approval to bring in toys and treats for Colin. “It kind of becomes something they usually bond over,” Kalbac said. Because cancer patients become so immunocompromised through chemotherapy side effects, staff have to be extremely cautious about allowing outside materials in at the risk of carrying bacteria that might risk their already deteriorating health. Most materials in the hospital are regularly sanitized or sterile so there must be a conversation surrounding what these patients bring in in regards to posing a health risk to themselves and others. Kalbac was happy to report, however, that in most instances this is ok in waiting rooms, or for volunteers to give to Colin, much to the pleasure of patients. The ability to have something in common with all levels of the hospital, from other patients to nursing staff and doctors, allows everyone to cement these relationships by continuing to connect over positive conversation. “Even if they’re both having bad days, [...] if it’s a hard day for both of them, they have the dog to talk about,” Kalbac said. “It’s something exciting for them to talk about and all of the employees at Lennar absolutely love him.”

CONCLUSION

Although my time participating in the actual organization at Upup was limited, I was able to form meaningful connections with those involved in my experiences and delve deep into researching a passion of mine. Oddly enough, I felt incredibly connected to my family back home throughout this process. I had an in-depth interview with my aunt that opened my eyes to

some truly humbling and life altering stories of service through therapy dogs and my sister, a cancer-survivor, opened up about her experience with this as well.

I came to a staggering realization; what I was finding in my research of therapy dogs creating community and an abundance of positive, light-hearted conversation was happening in my own life through this project. Family members far and wide wanted to know more, and were constantly asking for updates about my research. I grew close with a girl on my floor also participating in this same service-learning project class. Others on the floor became curious of our collective endeavor and asked to learn more. Professors interested in my work were happy to forward me articles they thought might be of help. Unfortunately, cancer has touched the lives of many around me, but luckily so has the healing power of dogs. Through this collective trauma and healing we had emerged more unified than ever, and this project has only solidified my confidence in this finding.

Through all of my research and observations, however, I feel the answer can be boiled down to a very simple answer; dogs understand. They have a unique ability to size up a room and almost immediately understand who needs their assistance. From what I've seen and researched, what has come across in various interviews, is that this isn't seen as a job by the dogs, instead they are natural givers. The patients receiving this care, in many ways, are predisposed as well to be receptive to dog therapy. While many might associate the chemo infusion wards of hospitals as a depressing atmosphere, the reality is that these patients are so willing to make their experience better that when the dog comes in, both assume a very instinctive desire to love. It is a symbiotic relationship that comes naturally to almost any life on Earth. How can we apply this concept to treatments and doctors to cater to this? Through a greater emphasis into researching the power of

optimism and fostering it in the treatment and healing process of cancer patients. From what has been discussed about the prospects of emotional contagion, regulation, and realignment it is worth the thought. In respect to community in conjunction with optimism, it is commonplace that in a workplace a positive tone is set from the top down and colleagues' attitudes make a world of difference in one's experience. Promoting optimism among hospital staff from the top may be the crux of witnessing its ability to touch every level of the institution, right down to the patients, creating ideal conditions to create community. With this mindset and further research into its potential we might see less people in chemotherapy rooms and more doctors armed with the power of positivity, with an added canine sidekick.

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Appendix A:

Kim Crosby Interview

How long have you been participating in dog therapy? What inspired you to get involved?

My Labs, Millie & Pards, have been certified Hospital Therapy dogs since 6/20/12 when they were just 3 years old. They are now 10 years old. We knew from the moment that we got our puppies in November 2008 that we wanted to train them to be Therapy Dogs. Our Family read the book "Angel Dogs" as the dog on the cover looked just like our pups. The book talked about many dogs that were healers, loving companions, lifesavers, prison rehabilitation specialists, and Hospital Dogs. Life was busy and we only pushed to get serious about training our dogs when my brother-in-law Craig Riddle was diagnosed with terminal pancreatic cancer. We felt the crush

of time descend upon us and put much time into training our Labs so they could visit Craig in the Hospital. This provided the only glimmer of light when dealing with such horrible news.

How have you noticed the hospital staff responding to the dogs' presence?

Sometimes I think Millie & Pards are there to lift the spirits of the Hospital staff. This is especially true on the ICU floor and Hospice. The prognosis for patients on these floors is dire and the doctors/nurses often have nothing left to offer the patient or the worried, loving family members. It is a very difficult environment to work in and the staff quickly approach my Therapy dogs for hugs, pats, kisses, and the gaze of the warm chocolate brown eyes of Millie & Pards. When there are no words left to be said, a dog hug can fill that void.

Have you noticed patients interacting better and more often with others (could be other patients, doctors administering care, nurses, or yourself) when participating in therapy?

A therapy dog entering any floor of the Hospital immediately draws people into conversation. This is particularly true on the open-floor plan areas like Chemo or IV Infusion. I love visiting these floors as I witness an immediate change in the moods of all. Patients that have been sitting side by side in silence for hours getting treatment open their phones to share pictures of their pets. They share funny pet stories. Laughter ensues! Eyes light up! Smiles reach the corners of faces! Phones are swapped to get a better look at their now close 'neighbor's' pets. One man receiving chemo even got the entire floor to sing "God Bless America" (he was a professional singer). So often, Prior to Pards entering the floor there is only silence. The Staff also connects better with their patients as they talk about pets together. Millie & Pards are ambassadors that bring people together in the best way.

Do you notice both immediate and long-term effects on patients?

Yes, I notice both immediate and long term effects on patients. The immediate effect was described in Question #3. I see long term effects as well. Sometimes we schedule our Hospital visits to match particular patient's chemo schedules. Over many months of chemo, patients feel less fear and apprehension getting treatment knowing Millie & Pards will be at their sides. Not being alone during treatment, and knowing you won't be alone brings a wash of calm.

Have you noticed both mental and physical effects on patients?

I see both mental and physical changes in patients. Mentally, patients become immediately engaged and want to participate in conversation. Patients that are suffering Alzheimer's or dementia and have not talked in weeks have talked or tried to connect. I visited an Alzheimer's patient that had not talked all week and with Pards in the room he recalled his Lab on his sail

boat from the very distant past. The Family was so happy to witness this. I had a patient in ICU that was very sick that had streams of tears flow down his face when Pards entered. I apologized for his tears and he said they were tears of happiness from recalling his dog from childhood and that it was ok. It was good. I had a patient in ICU that had severe staples across his head. The doctors hoped to remove a brain tumor but it was not possible. This patient just kept his hand on Pards' head and ears. We stayed there for an hour until he fell asleep. Pards brought him some relief before he slept.

How do you feel when you participate in dog therapy?

I am so incredibly blessed and happy to provide Hospital Dog Therapy. I get to witness the miraculous powers of animals and their companions new and old.

How does your dog's' demeanor change while participating in therapy?

As soon as I open my closet and put on my Hospital Volunteer blazer, Pards gets so excited. She knows we are going "to work" at the Hospital. Pards loves people and is so excited to get the positive patient/family/staff reaction to her presence. Tending to patients comes naturally to Pards. She gives kisses and looks at each patient as if they were the most important and loved person in the World! She is a very happy dog at the Hospital. When Pards comes home, she is mentally tired and takes a nap on the couch. She is a giver and needs to recharge for her next day at the Hospital.

What do you think is the most important impact of dog therapy?

The most important impact of dog therapy is bringing joy and comfort to individuals that may be experiencing fear, pain, or loneliness. If a Therapy dog can put a smile on a face and lift spirits it will help not only the patient, but also the family and the staff. The Hospital can be a very difficult environment and I can't think of anything that alters that heaviness more than our four footed furry friends!

Appendix B:

Emily Kalbac, UPup President Interview:

The biggest thing is because he's around chemo patients, there's a lot of extra regulations so it's not even just going into a school it's something where these are-- these people are very immunocompromised. So we have to be really careful and make sure he's super up to date with all his vaccines, even more than most dogs. And because he's a previous service dog in training, he has to have extra training and extra insurance for everything so he has special dog insurance

so in case anything were to happen to him or someone else, and he also has to have additional vaccines that most dogs wouldn't have to have because he's around chemo patients.

Also another big thing, I don't know if you guys saw this when you were there, there's a lot of wires in the rooms and so one of the main reasons we have that insurance is in case something were to happen where his tail were to get stuck and pulls the chemo lines and everything down there would be some sort of backup. So truthfully, there's a lot of legal stuff unfortunately but that's just to protect other people and to protect Colin so we have those. And then also we have to make sure the people who are going, even the people who are in training are well-trained enough. Because like I said, these are chemo patients they're not just regular old patients, you know, you have to be really careful with them. And, because we're in Miami when we have veteran members we prefer that they know a little bit of Spanish, so that's another thing that just takes a little bit longer to train most of the people that go there. So on our side at least, that's what takes a little bit longer, so that is one of the biggest things. Because we're with, again, patients that are dealing with possible end-of-life situations, we want to make sure that people are trained and know what to say to them because we have had incidents where people have said inappropriate things to the patients. So that's another big thing, we want to make sure everyone's trained on both sides; both at Lennar and on UPup's side.

So most people when they bring a dog into a hospital have to be associated with an actual organization that's specifically for bringing a dog to a hospital. So there are other groups that wanted us to join with them so that we could go to the hospital, because the Lennar Center already has other groups that bring dogs in so that was a big deal. So the hard thing for us, that we were dealing with, and this was just what was a matter of fact, was it was going to be thousands and thousands of dollars, and each person was going to have to pay, if you wanted to go, \$500 to go with Colin on your own. We weren't going to ask our members who are college students, well we wouldn't ask anyone to do that. That's not something we were interested in, and it would have been a lot of extra regulations, and so luckily we have a good relationship with the people at Lennar and they trust our students because we are UM students, so I think that that was the main reason why we didn't end up going with that other group.

Another thing is that different companies and organizations run the process differently, and so for example some people, some organizations don't let dogs in the actual treatment rooms-- they only let them in waiting rooms. We like that interaction with patients in their rooms because that's when they're usually the saddest and they're just there connected to all these wires, so that's when we want them to have that interaction with the dogs, so that was really important to us to maintain that.

Rachel: If UPup was absorbed into another organization would that no longer ...

Emily: -- We couldn't do what we wanted to do, and what we had previously done. I think it was more because we had already been going on our own and this group was newer that started going there, so we didn't want to have to change so much of what the patients there already knew because they expect something from UPup. The people there know Colin, a lot of them are long term patients and so they want the same type of care and same service that we've been giving them for a few years, I think that was important for us and for our mission as UPup to maintain that.

In creating community, that is definitely I think the biggest thing. When I was originally trained for Lennar, we said sometimes you can go there and put the dog in front of them and if they don't want to talk to you-- just leave it. Let the dog be that mediator, so that's how we were trained. If they want to pet the dogs butt, like whatever they wanna do, like give him a butt scratch that's totally fine. You know, that's kind of, at least for people who like animals, who like dogs, it's kind of that buffer. You don't always want to talk to another human being-- sometimes it's just exhausting. You can still love people but sometimes it's just easier to talk to a dog and pet a dog. That was one of the biggest things that kind of created a bond between the people on the other side of the dog without having to say something sometimes. And again, with the language barrier, we can't train all of our members to be able to speak Spanish in such a short amount of time, so to be able to have a dog that's kind of like a translator almost is great. You know you can kind of motion to the dog and the dog is happy so I think it's a nice connection to have the dog, even with language barriers it helps.

At least most of the times that I go a lot of people are in their [treatment] rooms with their family members, they're not just alone. So even if the patients don't want to see Colin, usually the family members need a break because sometimes they're even more mentally and emotionally exhausted than the actual people who are getting chemo-- they're more physically exhausted. Not to say that these patients aren't mentally exhausted as well but sometimes they need a break and to feel like they're being supported because they're usually trying to be so strong for their family member or friend or whoever they're taking care of. So I think having Colin there, especially for the family members is really important.

Everyone at Lennar pretty much knows Colin by name -- the staff and the actual patients. So they will actually have conversations with each other about Colin. Like "Oh Colin's coming today!" It's something exciting for them to talk about and all of the employees at Lennar absolutely love him, so I think the fact that you have something in common with the people who are taking care of you, in terms of patients and doctors, or even just the people who are waiting on them, and nursing staff, I think that they have something in common to talk about even if they're both having bad days, you know, if it's a hard day for both of them, they have the dog to talk about. So again, even with the family, dogs are kind of that mediator and it enables people to connect over something even if they can't find anything else to talk about.

Oh, and the other thing is we've had a lot of patients bring in toys for Colin, and they're not supposed to bring anything into the chemo rooms without telling their physicians or the nursing staff, so it kind of becomes something they usually bond over. We've seen it a couple times, they're like "I have this toy! I want to give it to Colin today is it ok?" and they have to check with-- again because they're so immunocompromised they have to be really careful whatever you bring into that room has to be sanitized and everything. So even having that-- having to ask for permission sometimes, I think that's just another thing they can talk about so they don't feel so lonely going into the room.

Usually when we leave there-- you might have seen people will talk about their dogs and they're like "oh my gosh, I used to have a dog like this!" or they start thinking about other times, and usually it's a happy time in their life that they had, like "oh my gosh I remember when I got my puppy!" you can see that immediately, they're happier.

But then long-term, because most of them are recurring patients, they're not just going one time, some of them have even been there for three years since I started, we see the same patients every single week and they always say-- people cry all the time. And they're like "This made my day-- you don't understand" no matter how many times they've seen Colin just like "This is the best part of going to chemo, going to radiation." And so they feel like he's their friend, and they know that he's a constant-- that's why we're so careful, we really want to keep everything the same for them, because we want people have that routine. So I think long-term, just providing that routine for people and providing them with this sort of constancy, everything else in their life could be changing but in that moment they have something that they remember and can hold onto, so I think that would be more long-term.

And definitely people say that that has helped them stay optimistic, which is so critical for, and scientifically proven, in the healing process, just optimism. Especially for breast cancer, it's so strongly linked, so to be able to provide people with that, I think, is really really important, and it's a very holistic approach treating every aspect of the patient, which I think more medical personnel are recognizing now, that you need to treat the entire patient. So I think in that sense it provides long-term benefits because that's even been studied, just having hope is so important. It's literally the most important thing. Especially for certain types of cancer, it's one of the number one indicators of whether or not someone will have a good prognosis.