

Canines and Childhood Cancer

*Examining the Effects of Therapy Dogs with
Childhood Cancer Patients and their Families
Executive Summary*



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Advances in medical knowledge, treatment and technology have all but obviated the fear of numerous childhood medical diagnoses that not so long ago could have meant a potential death sentence. Yet still today few words strike as much fear into the hearts of parents and children alike as a doctor's pronouncement, "Your child has cancer." As is rightly the case, billions of dollars are spent each year to prevent and more efficaciously treat pediatric cancer. While this work – some promising, some heartbreaking – wends its way through the proper scientific channels, a question of by no means equal but nonetheless immense import has received far less attention: "What can we do to improve the day-to-day health, healing, and quality of life of children suffering from cancer, and the families who suffer along with them?"

Common sense and anecdotal evidence point to numerous potential answers. We know one of the worst side effects of a pediatric cancer diagnosis is fear and the stress this fear produces, and that these factors alone can hinder treatment in a variety of ways. Therefore reducing fear and stress should have a positive impact. Similarly, if there were effective means to ameliorate related conditions such as loneliness, depression, isolation and the unforgiving pain associated with both the illness itself and the course of treatment, quality of life for patients and families could potentially be significantly enhanced. For many medical practitioners and lay people both within and outside the pediatric oncology community, there has existed a strong belief that – with the right patients and under the right circumstances – many of these benefits could be derived through the pairing of cancer patients and their families with loving, nurturing animals. Myriad stories of the significant healing power of animal-assisted therapy (AAT) and the human-animal bond abound. Yet little hard evidence exists as to whether these claims can be substantiated, under what conditions AAT is most effective, and how AAT, if proven useful, can best be incorporated into treatment.

No child...no family...should have to suffer through the trauma of a cancer diagnosis and treatment. But childhood cancer is a reality. As our pediatric oncology colleagues race to find ever-more effective preventative measures, treatments, and – one day – cures, our hope is that this study will help to provide meaningful, enduring, affordable, accessible and powerful healing and comfort to the children and families who need it now.

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In 2010, American Humane Association, Zoetis, and the Pfizer Foundation partnered to conduct a unique study on the impact of animal-assisted therapy (AAT) on children with cancer and their families. The goals of this collaboration are to promote innovation, evidence-based research, practice improvements, and knowledge advancement to further the field of research on human-animal interaction (HAI) and the treatment of cancer in children. This comprehensive review includes literature regarding childhood cancer epidemiology and

treatment, the well-being of patients and families who are impacted by childhood cancer, the applications of AAT for various populations in need, the state of AAT effectiveness research, and the considerations that need to be made when incorporating therapy animals into clinical settings.

Children of all ages, races, genders and socio-economic strata, and

their families, are affected by cancer every year. Medical advances have drastically improved the survival rates for many forms of childhood cancers; however, incidence rates have remained fairly stable for decades. At any given time, in the United States, more than 40,000 children are undergoing cancer treatment and nearly 13,500 parents each year are hit with the devastating news that their child has been diagnosed with cancer. Given that medical advances have improved survival rates, yet so many children and families continue to be affected, it is important to understand the unique physical and psychosocial issues that these children and families face due to the diagnoses, treatment, mortality, and survivorship of childhood cancer.

Children diagnosed with cancer and their families not only cope with physical issues, but are also prone to



psychosocial issues including isolation, depression, trauma, stress, and fear. Child and adolescent patients generally undergo a decrease in their quality of life across all stages of active cancer treatment, and may experience depression, emotional distress, fatigue, physical pain, post-traumatic stress, social stress, and withdrawal symptoms both during and after their treatment processes. This may affect their physical health, and even when physical effects may improve over time, many psychosocial and behavioral effects remain and may impact childhood cancer survivors for the long term. These effects on children can also vary by type of cancer; patients with certain types of childhood cancer experience improvements more than others, and children with other types experience more long-term risk for ongoing behavioral and psychological problems. With both improvements in outcomes for some, along with concurrent or subsequent increases in other problems for others (even for the same children in some cases), this is truly a tumultuous time for these children and their families in a number of respects.

Not surprisingly, families of children with cancer also tend to struggle while coping with the considerable challenges of childhood cancer and its aftermath. Upon learning that their child has cancer, parents tend to experience anger, anxiety, denial or avoidance of their child's illness, distress, grief, post-traumatic stress, sleeping problems, weight gain, and decreased physical activity, all of which can greatly endanger their health and well-being. Parental distress tends to vary as a function of time from diagnosis, with parents of more recently diagnosed patients presenting higher levels of distress than parents of children who have been living with cancer for some time. The relationship between parents

is also commonly impacted – both negatively and positively – by their child’s cancer diagnosis and treatment, and family roles and responsibilities often change when one child in the family has cancer. Thus, siblings of cancer patients also experience psychosocial effects, including acting out, feeling left out or less important, loneliness, maturation (as a result of increased expectations and responsibilities), sorrow, and anxiety. Overall, distress experienced by one family member can negatively affect the physical and emotional wellbeing of the ill and vulnerable child with cancer.



Given that a diagnosis of childhood cancer can negatively impact both children and families on a multitude of levels, it is important for healthcare professionals to not only attend to the physical and medical needs of the child, but also to the emotional, psychological, and social needs of the entire family. One very exciting possibility is that a focus on improving children’s ability to cope with stress could prove to be comprehensively beneficial to their entire family. Additionally, due to the high and

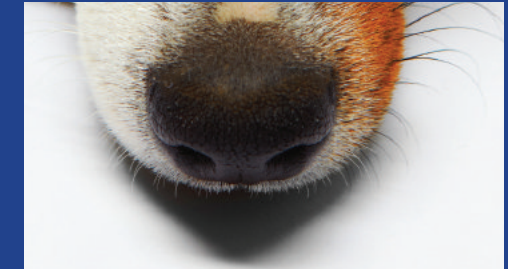
stressful costs of cancer treatment, services or adjunctive interventions aimed at addressing the family’s psychological needs should be both accessible and affordable. AAT is one of several adjunctive, low-cost treatment options that could potentially address the immediate and ongoing psychosocial needs of many families coping with childhood cancer.

For many families, animals and pets take center stage in their daily lives, offering companionship, solace, joy, and for some, even kinship. Increasingly, greater attention has been given to the roles that animals can play in supporting the health and emotional well-being of people in need. Many research studies have provided promising evidence that involving animals in therapeutic interventions provides benefits for many populations, such as exercise or opportunities for positive play; relaxation and reduced anxiety; unconditional support and acceptance; improved skills that lead to healthy relationships with others; enhanced social interactions; increased learning,

growth, and development; and improved senses of self-esteem and confidence. For critically or terminally ill populations, such as children with cancer and their families, therapy animals also have the potential of normalizing the hospital experience, motivating active participation in the healing process, offering helpful distraction from pain or worry, decreasing blood pressure and heart rate; alleviating distress; increasing opportunities for sensory stimulation and physical touch; and decreasing depressive symptoms by offering joy, company, and something to look forward to.

Notably, the incorporation of therapy animals into healthcare treatment is a complex undertaking which requires a special consideration of myriad topics in order to ensure safe and beneficial interactions. Such topics include infectious disease control and zoonoses, human allergies, phobias and physical harm, animal well-being, therapy animal selection, handler role, participant inclusion, and service delivery protocol.

The majority of findings documenting the benefits of AAT and pet ownership have largely been anecdotal and the field has consistently struggled with developing and conducting rigorous research. While the field of HAI research has expanded enormously, it is not yet clear that the incorporation of animals in clinical settings is effective from a scientific standpoint. The *Canines and Childhood Cancer (CCC)* project intends to add to this knowledge base by examining the experiences of children and families coping with childhood cancer, and by understanding how best to integrate AAT into pediatric cancer treatment. The literature documented in this review is intended to serve as a resource to the fields of HAI and pediatric oncology, as well as a foundation for the current study examining the efficacy and impact of AAT in the context of childhood cancer treatment.



Research Study Overview – Next Steps

With the completion of this comprehensive literature review, as well as focus groups and interviews with hospital staff, family caregivers and animal-assisted therapy handlers, American Humane Association and Zoetis conclude the first phase of the *Canines and Childhood Cancer* study. The information gathered during this initial phase will serve to inform a scientific study design in order to conduct a pilot trial with 3-5 pediatric oncology sites across the country.

Upon the conclusion of the pilot trial, we anticipate the launch of a full clinical trial across multiple sites for a period of 12-18 months. During this time, certified therapy dogs and their handlers will conduct regular animal-assisted therapy sessions with pediatric oncology patients and their families, which will be measured by a range of instruments including biological, psychological and social measures.

Results from the study will be widely disseminated through professional conferences and peer-reviewed journals in a diverse range of disciplines, including veterinary medicine, pediatric oncology, social work, and animal-assisted therapy. Our hope is that this important research will help facilitate the healing process for pediatric oncology patients and their families so that they thrive while coping with the considerable challenges of childhood cancer and its aftermath.



To download the entire review, go to www.CaninesAndChildhoodCancer.org

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