## Canine Visitors: The Influence of Therapy Dogs on Young Children's Learning and Well-Being in Classrooms and Hospitals

Mary Renck Jalongo, 1,4 Terri Astorino, 2 and Nancy Bomboy 3

Trained therapy dogs are becoming an increasingly common sight in many educational and health care settings. This article, coauthored by a college professor, a Therapy Dogs International, Inc., Evaluator and local program director, and a registered nurse reviews the research on using registered therapy dogs as adjuncts in school programs and health care treatment plans for children ages 5–8. It addresses to the most commonly raised objections to allowing dogs in classrooms and patient rooms and offers practical guidelines for maximizing the positive outcomes of animal-assisted activities and therapy (AAA/T).

**KEY WORDS:** pet therapy; animal-assisted activities; animal-assisted therapy; Therapy Dogs International, Inc.

## INTRODUCTION

A third-grader who is a reluctant reader eagerly awaits his weekly opportunity to read aloud to a trained therapy dog, a golden retriever named Maya. As this struggling reader shares a book with his canine companion, the boy relaxes and reads with greater confidence and fluency. Later that week when the boy shares the same book with his sixth-grade tutor, that practice with a calm and patient canine partner pays off: the tutor remarks, "Hey, that was good. Your reading is getting better."

This child's teacher and the dog's handler are convinced that it is beneficial for children to read to their canine companions. Are the adults just seeing what they want to see, blinded by their enthusiasm for dogs? Evidently not. Empirical research supports the contention that the presence of mellow companion animals tends to reduce stress. Physiological measures such as a reduction in heart rate, lowered blood pressure, and other observable signs of anxiety reveal that interacting with a dog can

moderate stress (Katcher, Friedmann, Beck, & Lynch, 1983). A study conducted in South Africa used blood analysis before and after a positive interaction under two conditions: with the person's pet dog and with an unfamiliar dog. The researcher concluded that there is a reciprocal, positive, physiological basis for animalassisted therapy (Odendaal, 2001). In their review of the research literature, Friedmann, Thomas, and Eddy (2000) concluded that the moderating effect of the presence of an animal on stress responses may be influenced by such things as the type and familiarity of the setting, the type of stressor, the child's perception of the animal, or the child's relationship with it. Despite these sources of variation, the presence of a calm, attentive dog apparently moderates the stress responses more than the presence of an adult and even more than the presence of a supportive friend when children were reading aloud or having a routine medical exam.

Visitation programs that bring trained therapy dogs to school as a way to encourage children's reading are a relatively recent phenomenon in the United States (Glazer, 1995). The most well known of these programs is the Reading Education Assistance Dogs (R. E. A. D.©) program, which was begun in Salt Lake City in 1999 by Intermountain Therapy Animals (ITA) (http://www

<sup>&</sup>lt;sup>1</sup>Indiana University of Pennsylvania.

<sup>&</sup>lt;sup>2</sup>Edinboro University, PA.

<sup>&</sup>lt;sup>3</sup>Therapy Dogs International, Inc., Home, PA.

<sup>&</sup>lt;sup>4</sup>Correspondence should be directed to Mary Renck Jalongo, 312 Davis Hall, Indiana University of Pennsylvania, Indiana, PA; e-mail: mjalongo@iup.edu

.therapyanimals.org). Preliminary findings from the ITA research were very encouraging. All of the students who participated in R. E. A. D. for 13 months gained at least two grade levels, and some improved as much as four grade levels, according to ITA Executive Director, Kathy Klotz (Bueche, 2003). Similar findings pertained in the Carolina Canines for Service project (Newlin, 2003). Fifteen second-graders who tested below grade level for reading fluency and on reading tests were paired with a therapy dog and handler once a week for 20 minutes throughout the school year, and most of the children "improved their reading skills by at least two grade levels" (Newlin, 2003, p. 43). Media coverage has resulted in greater public awareness of such programs, and similar programs have been instituted in communities throughout the United States (http://pawsforhealth .org). Animal-assisted activities show great promise for motivating children to complete academic activities, not only in reading but also across the curriculum (Nebbe, 2003). Additionally, research suggests that the presence of trained therapy dogs and service dogs can support the goals of inclusion. In one study of peer interaction, a child without disabilities was 10 times more likely to interact with a peer who had disabilities if the child was accompanied by a dog (Katcher, 1997), thus lending empirical support to the "social lubricant" function of dogs described in the 1960s by Boris Levinson (1969), a child psychotherapist and the father of pet therapy. The physiological as well as psychosocial benefits of positive interactions between young children and therapy dogs are not purely anecdotal; rather, there is a growing body of research to support the existence of a human-animal bond (Delta Society, 1997).

A 5-year-old suffering from a severe infection lies quietly in her hospital bed late in the afternoon as tears roll down her face. She has become inconsolable today, and the nurses cannot figure out why. A small beagle named Barney walks into her room and studies the girl's face. When the child reaches out to it, Barney hops up onto the chair next to her bed. The girl smiles for the first time all day as she touches the therapy dog's velvety ears and reveals what is troubling her the most: she saw that her grandma and people on television died after they had an I.V., and now she has one too. After the child confides this fear aloud while talking to Barney, it enables the nurses to do a better job of allaying her anxieties.

Can the presence of a dog exert a positive influence on a child's emotional and physical well-being, or are these reports simply touching anecdotes? A number of experimental and quasi-experimental studies confirm that they do (Johnson, Odendaal, & Meadow, 2002; Moody, King, & O'Rourke, 2002). "Three categories of human—animal association provide physiological benefits to individuals:

people explicitly looking at or observing animals or pictures of animals; people being in the presence of animals but not interacting with them; and people touching or interacting with them" (Friedmann et al., 2000, p. 137). Animal-assisted therapy is founded on two principles: children's natural tendency to open up in the presence of animals and the stress-moderating effect of an animal's calm presence. Research estimates that over 70% of children of all ages do tend to talk to and confide in animals (Serpell, 2000). In fact, the growing realization that talking with animals can be therapeutic has led many residential treatment facilities, such as Green Chimneys in upstate New York (www.greenchimneys .org), to make animal-assisted therapy a regular component in their treatment plans for children with severe emotional problems and behavioral disorders.

As these incidents in a hospital and a classroom setting suggest, canine visitation programs that bring trained therapy dogs into contact with children in the primary grades can offer a unique form of support to children's learning, physical health, and emotional wellbeing. This observation is far from new, however. Enlightened practices at the York Retreat in England in 1792 gave psychiatric patients responsibility for the care of rabbits and poultry. Florence Nightingale (1820-1910), whose legendary compassion inspired the entire profession of nursing, advised that a small pet could make an excellent companion for the sick particularly for the chronically ill. Today, a San Francisco-based group called Pets Are Wonderful Support (PAWS) provides carefully selected animal companions for HIV patients of all ages (Spence & Kaiser, 2002). With over a hundred years of research and practice as support, bringing registered canine therapy animals into schools and hospitals has progressed far beyond that (evidently) irresistible urge to say that these institutions are "going to the dogs." There is a growing interdisciplinary and increasingly international understanding, as well as a burgeoning field of study, surrounding the benefits of animal-assisted therapy (Ascione & Arkow, 1999; Fine, 2000; Jalongo, 2004; Podberscek, Paul, & Serpell, 2000).

# WHAT ANIMAL-ASSISTED ACTIVITY AND THERAPY IS (AND IS NOT)

The distinction between animal-assisted activities and animal therapy is that animal-assisted activities are often offered to a group of children on a short-term basis, and animal-assisted therapy is planned for individual children as part of a curriculum. Visitation programs

Canine Visitors 11

that bring companion animals into educational settings typically share three important characteristics:

- 1. Certification and Insurance. Both the personnel in the programs and the companion animals are specially selected, trained, evaluated, and registered. The most well-known training programs for volunteers and their canine companions are sponsored by Therapy Dogs International, Inc. (http://www.tdi-dog.org) and the Delta Society (http://www.deltasociety.org). Members of these organizations are covered by liability insurance through their annual dues, a very important consideration for educational and health care facilities. Dogs selected as therapy animals can be purebred or mixed-breed and must be at least one year of age. Therapy animals are selected based on their gentle, calm demeanor, and ability to adapt easily to unfamiliar circumstances. They must be tested and pass before earning the credentials of a registered therapy dog.
- 2. Programming. Animal-assisted activity and therapy is much more than just bringing a family pet along to a school or hospital. In schools, therapy dogs are part of an educational goal, while in hospitals, they are part of the patient's treatment plan. In the R. E. A. D.® program (www.therapyanimals.org), three things are taken into consideration: book selection (e.g., matched to age, reading level), interest (reading material is focused on an animal theme), and motivation (each book is "pawtographed" with a pawprint of the dog, and, after a child reads 10 books, he or she gets to keep the book). High-quality canine visitation programs are fully integrated into the curricular goals of schools and into the health and wellness goals of hospitals. Sidebar 1 describes how therapy dogs fit into pediatric care.
- 3. Collaboration. Usually, more than one institution and organization is involved in animal-assisted therapy. The institutions most often involved are schools, libraries, and hospitals, and the organizations that collaborate typically include, at minimum, the group that provides animal-assisted therapy personnel as well as agencies that locate, train, certify, and provide health care for the animal. Increasingly, businesses are investing in AAT. In the Reading with Rover program in the state of Washington (http://www.kcls.org), companies such as Barnes and Noble and Home Depot collaborate in canine therapy programs by offering their retail stores as sites where trained animals can be field tested for their ability to adjust to new environments and interact with many different people in a public setting.

Thus, animal-assisted learning activities and therapy programs definitely are not the same thing as keeping a classroom pet. During animal-assisted therapy, animals visit rather than reside in the school setting. Nor is canine-assisted therapy the same thing as a teacher bringing an unpredictable family dog to school; both the handler and the animal in therapy programs have been thoroughly trained, evaluated, and registered, enabling them to adapt to many different environments and situations. Canine therapy programs have gained popularity as well; Intermountain Therapy Animals reports that it registered 14,000 dogs from all 50 states, Canada, and some other countries in 2003.

# WHAT OBJECTIONS ARE COMMONLY RAISED TO THERAPY DOGS IN SCHOOLS AND HOSPITALS?

Irrespective of whether professionals are committed to animal-assisted therapy or are skeptical of it, there are some legitimate issues that must be addressed when canines visit hospitals and schools. What follows are the most common objections to hosting a canine visitor in a child's classroom or patient room and an explanation of how these concerns are addressed.

## **Sanitation Concerns**

One common concern is that the dog might be a "host" carrier of "zoonoses"—diseases and infections transmitted from animals to human beings. Of course, this issue is of particular concern in hospital settings. Recent research conducted by a team of nurses concluded that, even though dogs have the potential to transmit the greatest number of zoonotic diseases to patients, the danger is minimal if responsible safety measures are observed (Brodie, Biley & Shewring, 2002). Such safety measures include having adults and children wash their hands before and after a visit, providing "one-time use barriers" (i.e., disposable pads on which the dogs can sit), and adhering to meticulous grooming and health care for all of the canine visitors. Therapy dogs are also trained not to lick or scratch, thereby controlling a major potential source of infection. Therapy dogs also have regular check-ups with their veterinarians. Therefore, they are as clean as just about anything else around the school environment or the public spaces in health care facilities. On rare occasion, even a highly trained dog will become ill suddenly and vomit, urinate, or defecate in the school or on school property as well as in the hospital. Their handlers bear responsibility for cleaning up after their animals and are prepared to do so appropriately. With careful planning, policies, and procedures, sanitation concerns can be controlled. Therapy Dogs, Inc., proudly reports that over 4,500 pet partners have served 350,000 patients in 49 states, one clear indication of the success and acceptance of such programs in the United States.

### **Safety Considerations**

Dogs registered through Therapy Dogs International, Inc. (TDI, Inc.) are rigorously evaluated. To maintain their therapy dog certification, the handler must renew their annual membership with TDI, Inc., which includes an annual veterinary visit for their dog.

### SIDEBAR 1: THERAPY DOGS IN THE HOSPITAL SETTING

## Terri Astorino, R.N.

Faces that were once sad, lonely, and filled with despair brighten dramatically as a white German Shepherd, a therapy dog named Snowball, comes lumbering down the quiet, antiseptic hospital corridor. Gone are the children's thoughts of pain and suffering. In the place of tears and cries are giggles and smiles. Animal-assisted therapy has enhanced the children's ability to progress toward physical and psychological wellness. Scenes such as this one are being repeated all over the country. Therapy dogs are a daily sight in health care programs for children in the United States. From long-term care facilities to children's hospitals to intensive care units, therapy dogs are being incorporated into patient treatment plans. Why make canine visitors part of health care programs for children? Simply stated, companion animals offer something that humans cannot—companion animals provide unconditional love and emotional support.

Animal-assisted therapy (AAT) or pet-facilitated therapy (PFT) has been described in the literature as an applied science, incorporating the use of animals to assist in resolving human problems (Gammonley, 1991). Amazingly, AAT has been documented as far back as the 1800s (Brodie & Biley, 1999). Where children's health care programs are concerned, AAT consists of specially trained therapy animals used by medical professionals to achieve specific beneficial outcomes (Miller & Conner, 2000). The use of companion animals, particularly trained therapy dogs, has gained great respect in medicine and because these practices have the backing of empirical research (Miller & Conner, 2000).

Research has demonstrated that AAT can yield many positive outcomes for children's well-being, which include "decreased feelings of loneliness, feelings of increased physical and psychological well-being, decreased need for medications, enhanced quality of life, improved physical function, decreased stress and anxiety, and increased motivation" (Fontaine, 2001, p. 31). Young children's delight and positive responses are easy to recognize. When Corky, a Yorkshire Terrier, performed the tricks of dancing and rolling over to entertain a 2-year-old transplant patient, a 6-year-old across the hall who could see the little dog called out, "I want him in my bed!" (Roosevelt, 2001).

As health care professionals, nurses are trained to be careful observers of patients' behavior and to document carefully these observations in their notes on patients' charts. The effectiveness of AAT is doubly persuasive because nurses' observations underscore the empirical findings on the benefits that can accrue to children when AAT is part of the treatment plan. A child with brain damage who refuses to complete a series of exercises to strengthen her grip, control, and range of motion may be much more willing to cooperate when the therapy consists of brushing a dog instead (Belcher, 2002). The moment that the canine visitors come onto the pediatrics floor, children's attitudes improve (Moody et al., 2002). It is apparent to the hospital personnel that AAT is one successful way to support children not only in coping with illness but also in easing the transition during what may well be the most difficult moments in their young lives. There are many physical, social, and psychological advantages to the AAT in hospitals and other health care facilities (Peterson, 1999). Perhaps the most compelling argument of all is the health care professionals' opportunity to regularly witness a canine visitor's capacity to elicit a positive response from children despite their difficult and sometimes desperate circumstances. As Miller and Connor (2000) observe, for years, nurses have resorted to secretively bringing animals in to hospitals in an effort to console and cheer patients; today, health care professionals have the backing of medical research, the resource of trained therapy animals and handlers, and the support of carefully assessed programs to effect more positive outcomes for patients.

Canine Visitors 13

TDI, Inc., canines are graduates of basic obedience classes as well as other, more specialized, forms of training. As a result, displays of aggression are highly unlikely. Just as a highly trained person can accomplish tasks that would be hazardous for others to attempt, registered therapy dogs are capable of coping with circumstances that would be dangerous with untrained family pets.

### **Allergies**

Therapy dogs are bathed or well-groomed immediately before a visit to school so animal dander, the most common source of an allergic reaction, is significantly reduced. Of course, school and hospital personnel will need to clarify the particular nature of a child's allergy to dogs and plan accordingly. Simple adaptations, such as holding a demonstration by therapy dogs in a large, airy auditorium or outdoors might solve the problem. With a parent's/guardian's and pediatrician's approval, it may also be possible for a child to be in the classroom with a dog briefly.

### **Cultural Differences**

In some cultures, notably the Middle East or Southeast Asia, dogs are regarded as unclean or as a general nuisance. Educators and health care professionals will need to determine what their local communities will accept in terms of bringing a canine visitor to a school or hospital. If these situations are approached in a culturally responsive way, it may be possible to arrive at a meeting of the minds. It is important to recognize that, although not all societies consider dogs worthy of human companionship, a child's naïve response can be very positive and quite surprising to parents and families who view dogs with disgust. It is important for adults to keep an open mind and see how children respond to dogs, rather than assume that the children will react as adults do. Part of caring about children is paying attention to and being accepting of what they care about, even if adults do not share their enthusiasm.

## Fear of Dogs

In many areas of the country and parts of the world, dogs are valued primarily for their fierceness and their ability to protect people and property. It will take direct experience with calm, gentle, and sensitive dogs to counteract such expectations or to reduce the anxiety caused by previous frightening encounters with canines. The best approach is to avoid forcing the issue. If a child is frightened, he or she can keep at a distance while

peers interact with the animal. According to the psychological research on phobias, one of the most powerful ways to reshape a fearful behavioral response is to provide a positive peer role model (Bandura, 1976). Although bringing children into closely supervised and gradual contact with registered therapy dogs cannot be expected to eliminate all fear or dislike of dogs, it may help a child to recognize that not all dogs behave in the same way as those he or she may have had negative encounters with in the past.

# WHAT SHOULD PROFESSIONALS WHO WORK WITH 5- TO 8-YEAR-OLDS KNOW ABOUT CANINE VISITOR PROGRAMS?

# Recommendation 1: Work Exclusively with Registered Therapy Animals

Dogs and handlers go through a certification test before becoming a therapy dog/handler team. As a result, educators and health care professionals can expect that all of the handlers are insured. However, the insurance coverage from TDI, Inc., applies only to volunteers. Therefore, teachers or nurses who want to use their own therapy dogs during work hours would not be covered by that particular insurance. When volunteers come to schools, they need to have a criminal record check, a negative TB test, and any other clearances required by the school district. Other requirements set by TDI, Inc., are that the dog's shots must be up-to-date, the dogs are well groomed prior to arrival, and all dogs are kept on a leash during a visit. The best response to liability concerns is to prevent problems (e.g., working exclusively with child-tested animals) and to be protected (e.g., carry liability insurance). It is imperative to have a signed permission slip on file from a minor child's parent or guardian that allows that child to participate in canine visitation programs in schools and to check the medical history of patients before allowing a child or children to participate in dog therapy programs. Careful planning and highly trained teams of handlers and dogs are the best way to ensure positive programmatic outcomes.

## Recommendation 2: Prepare Children for the Canine Visitors

Young children can become very excited when a dog arrives in a school or health care facility. Teachers and nurses may have little information about the child's prior experiences with animals and will need to model appropriate ways of interacting with therapy dogs as

# SIDEBAR 2: A PRESENTATION ON THERAPY DOGS INTERNATIONAL, INC., AT A RURAL ELEMENTARY SCHOOL

## **Nancy Bomboy**

Today, two handler/therapy dog teams, Nancy Bomboy and a Golden Retriever named Copper and Bonnie Stewart and a German Shepherd named Betty will make a group presentation to three second-grade classes at Rayne Elementary School. The handler/dog teams are accompanied by three colleagues who are observing their first school program—Carol Bernabo, Judy Broome, and Judy Doles. All of the women are owners of dogs registered by Therapy Dogs International, Inc. The group arrives early, signs in on the visitors' roster, and assembles in the front of the auditorium. As the second-graders pass by, a solemn-looking second-grader with wispy hair and wire-rimmed glasses says excitedly, "I know these dogs! I saw Copper when I was in the hospital. That one is Copper, he's 5, and he's a Golden Retriever. That one's name is Betty, she's a German Shepherd and she's 7." "Did they cheer you up?" an observer asks "Oh, yes!" she says, shaking her head emphatically.

The presentation begins as each woman introduces herself and shares a nametag with a photo ID of the registered therapy dog she owns. There are many "oohs" and "aahs" from the children as they talk about the breeds represented, including a Golden Retriever, a Lhaso-Apso, a Shih Tzu mix, and three German Shepherds. Each woman talks about the characteristics of the breed and shares the story of how the dog was selected and trained to become a therapy dog. One was a shelter dog and another, an unsuccessful guard dog, for example. It sends the message that animals, like people, are individuals and can be terribly misjudged.

Next, the presenters provide a brief history on Therapy Dogs International, Inc. Clearly, the session has been planned around questions that any child might have, and Nancy and Bonnie (a retired teacher's aide and retired school teacher, respectively) have acquired skillful ways of talking with children. One important question that is on every dog owner's (or aspiring owner's) mind is, "Could my dog be a therapy dog?" and that is immediately addressed as they explain and demonstrate—using Copper and Betty—how the dogs are evaluated and trained. Another question is, "What do therapy dogs do?" This is answered as the presenters describe their visits to schools, funeral homes, hospitals (except where the babies and surgery patients are), and various groups and organizations. The goal of the therapy dogs, in the group leader's words, is emotional therapy designed "to make you feel good" and "relax you." "We want to make people happy," she concludes. The presenters further anticipate and answer another question that members of the audience members no doubt have about Copper and Betty: Do they ever go to disaster sites? The answer is "No," because the training for disaster and search-and-rescue dogs is unique, and dogs selected for each role have different strengths.

Next, the presentation focuses on responsible dog selection, training, care, socialization, and registration procedures. The demonstration and discussion then turns to safety around dogs, encouraging children to repeat and remember the guiding words of "quiet" and "slow" behavior. Using Copper and Betty as very willing live visual aids, the women demonstrate: how to approach an unfamiliar dog with its owner (ask if it is okay to pet the dog), a dog without its owner (realize that it may be lost or scared or sick and let the dog approach you, do not challenge it by looking in its eyes, look at its chest instead), the correct way to offer a dog a treat (placed in the center of the open palm of the hand), the proper way to pet a dog (approach underneath its chin), what to do if a dog chases them (curl up and lace fingers behind head to cover neck and ears). With each point, the children were asked questions designed to help solidify their learning. During the discussion of giving a treat to a dog, for instance, they were asked, "Why is it a bad idea to hold the treat

Canine Visitors 15

in your fingers?" and a child replies that the "dog might miss and bite you." These experienced presenters wisely wait until the session is nearly over to let the children know they will all have the opportunity to pet the dogs if they wish. This announcement activates excited looks, broad smiles, and comments to peers as children line up to get their turn. While petting Copper and Betty, the children talk to the dogs; comment to their peers, teachers, and the presenters; and offer remarks about their own pets. At the conclusion of the program, each child receives a new pencil imprinted with the local group's name—D.R. P.E.T. (Dogs Routinely Providing Emotional Therapy)—as well as a coloring book (sponsored by a grant from the Evans Health Fund of The Pittsburgh Foundation). All of the illustrations were drawn by two sixth-grade students, and all of the captions were written by the presenters to reinforce the key points of the presentation. It is a perfect culminating activity to an interdisciplinary teaching theme on the role of companion animals in people's lives.

The presentation was made at Rayne Elementary School, Marion Center Area School District, Home, Pennsylvania.

well as provide guided practice with the children that teaches them to greet the dogs in slow, quiet, calm, and gentle ways. If a group presentation is planned, it is best to coach the children about the difference between a comment and a question. The purposes of large group presentations are sometimes derailed by children wildly waving their arms, eager to be called on so that they can relate a personal experience. It is preferable to make the focus of the presentation explicit and to work with young children to prepare pertinent questions in advance. Sidebar 2 describes a group presentation to second-graders led by Nancy Bomboy, a representative from Therapy Dogs International, Inc.

# **Recommendation 3: Assess Individual Children's Suitability for Interaction with the Dogs**

When handlers and therapy dogs arrive at schools or hospitals, they must sign in just like any other visitors. The next step is to check with the professional personnel who requested the visit to determine which children might enjoy a visit from the dog and which children should not participate. Children with allergies or who are fearful of dogs are poor candidates for visiting canines. On the other hand, children in physical therapy might be more willing to stick with their regimen if they can reach out to touch a dog or walk to or with a dog. Clearly, some areas of the hospital are off limits, such as children in isolation or in the surgical unit.

# Recommendation 4: Consider the Dog's Safety and Well-Being

Young children who lack experience with animals may react unpredictably in the presence of a dog, partic-

ularly a large dog that they may perceive as a threat. It is best to demonstrate the correct way to approach the dog and to touch it, as well as keep a close watch to avoid any negative interactions. Children with behavior disorders and emotional disturbances often require very close supervision when interacting with the dogs. Potential benefits to the child include emotional support; reduction in blood pressure; reduction in agitation, anxiety, and stress; facilitation of communication with humans; and distractions that may reduce the need for drug therapy (McConnel, 2002). Nevertheless, it is unfair to overschedule therapy animals to the point where they are exhausted. Handlers, teachers, and nurses must also be vigilant in protecting therapy dogs from injury and accidents. Highly trained therapy dogs usually are tested around wheelchairs, walkers, or other orthopedic equipment; nevertheless, they can be accidentally hurt. It is never the case that dogs and children are simply thrown together while adults stand idly by on the sidelines. Rather, it is important for all of the adults involved to keep close watch on the entire range of canine-assisted activities and be alert to the first signs of difficulty.

### **CONCLUSION**

Throughout the 1970s and 1980s, the phenomenon of the human-animal bond, or HAB, was the focus of numerous national and international studies and conferences (Hines, 2003). Despite skepticism about the existence of interspecies bonds, we have moved from an interest to animals as workers to animals as pets and, finally, to animals that provide therapeutic support to human beings (Fine, 2000). Anyone who works with young children knows that they usually are fascinated and capti-

vated by animals (Melson, 2001). Animals predominate in the dreams, wishes, fantasies, drawings, and writings of children (Jalongo, 2004). As practitioners and professionals who have a commitment to the care and education of young children, we now have evidence to support and to guide in exerting a surprisingly powerful, positive force on children's physical health, psychological wellbeing, social interaction, and academic achievement: trained therapy dogs that visit classrooms and hospitals.

#### **ACKNOWLEDGMENTS**

The authors wish to thank Debbie Kennedy of Therapy Dogs International, Inc., and Kathy Klotz, Executive Director of Intermountain Therapy Animals for their review of this manuscript prior to publication.

### REFERENCES

- Ascione, F. R., & Arkow, P. (Eds.). (1999). Child abuse, domestic violence, and animal abuse. West Lafayette, IN: Purdue University Press.
- Bandura, A. (1976). Social learning theory. Englewood Cliffs, NJ: Prentice Hall.
- Belcher, D. (2002). Pet-assisted therapy at Mount Sinai in New York. American Journal of Nursing, 120(2), 71.
- Brodie, S., & Biley, F. (1999). An exploration of the potential benefits of pet-facilitated therapy. *Journal of Clinical Nursing*, 8(4), 329– 338.
- Brodie, S. J., Biley, F. C., & Shewring, M. (2002). An exploration of the potential risks associated with using pet therapy in health care settings. *Journal of Clinical Nursing*, 11(4), 444–456.
- Bueche, S. (2003). Going to the dogs: Therapy dogs promote reading. *Reading Today*, 20(4), 46.
- Delta Society (1997). Animal-assisted therapy: Therapeutic interventions. Renton, WA: Delta Society.
- Fine, A. (Ed.). (2000). Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice. San Diego, CA: Academic Press.
- Fontaine, D. (2001). Designing humanistic critical care environments. Critical Care Nursing Quarterly, 24(3), 21–34.
- Friedmann, E., Thomas, S. A., & Eddy, T. J. (2000). Companion animals and human health: Physical and cardiovascular influences. In A. L. Podberscek, E. S. Paul, & J. A. Serpell (Eds.), Companion animals and use: Exploring the relationship between people and pets (pp. 125–142). New York: Cambridge University Press.
- Gammonley, J. (1991). Pet projects. Journal of Gerontological Nursing, 17(1), 12–15.
- Glazer, S. M. (1995). Assessing the influence of visitors on learning. Teaching K-8, 26(3), 112-113.

- Hines, L. M. (2003). Historical perspectives on the human-animal bond. *American Behavioral Scientist*, 47(1), 7–16.
- Jalongo, M. R. (Ed.). (2004). The world's children and their companion animals: Developmental and educational significance of the child/pet bond. Olney, MD: Association for Childhood Education International.
- Johnson, R. A., Odendaal, J. S., & Meadow, R. L. (2002). Animal-assisted interventions research: Issues and answers. Western Journal of Nursing Research, 24(4), 422–440.
- Katcher, A. H. (1997). New roles for companion animals mean new roles for veterinarians. The Newsmagazine of Veterinary Medicine, 29(6), 12–16.
- Katcher, A. H., Friedmann, E., Beck, A. M. & Lynch, J. J. (1983). Looking, talking, and blood pressure: The physiological consequences of interaction with the living environment. In A. H. Katcher & A. M. Beck (Eds.), New perspectives on our lives with companion animals (pp. 351–359). Philadelphia: University of Pennsylvania Press.
- Levinson, B. M. (1969). Pet oriented child psychotherapy. Springfield, IL: Charles C. Thomas.
- McConnel, E. A. (2002). About animal-assisted therapy. *Nursing*, 32(3), 76.
- Melson, G. F. (2001). Why the wild things are. Cambridge, MA: Harvard University Press.
- Miller, J., & Conner, K. (2000). Going to the dogs . . . for help. *Nursing*, 30(11), 65–68.
- Moody, W. J., King, R., & O'Rourke, S. (2002). Attitudes of paediatric medical ward staff to a dog visitation programme. *Journal of Clinical Nursing*, 11(4), 537–544.
- Nebbe, L. (2003). Animal-assisted activities/Therapy as an animal and human welfare project. Retrieved from the World Wide Web Psychologists for the Ethical Treatment of Animals www.PSYETA.org
- Newlin, R. B. (2003). Paws for reading: An innovative program uses dogs to help kids read better. *School Library Journal*, 49(6), 43.
- Odendaal, J. S. J. (2001, April). A physiological basis for animal assisted therapy. *Dissertation Abstracts International: Section B: The Sciences and Engineering.* 61(9-B). p. 4999.
- Peterson, L. (1999). How puppy love is therapeutic: The miracle of Murphy. *Biography*, *3*(8), 44–49.
- Podberscek, A. L., Paul, E. S., & Serpell, J. A. (Eds.). (2000). Companion animals and us: Exploring the relationships between people and pets. Cambridge, UK: Cambridge University Press.
- Reading Education Assistance Dogs (R.E.A.D©), Intermountain Therapy Animals. (Includes frequently asked questions, printable brochure, and other resource materials on using dogs to promote reading). www.therapyanimals.org
- Roosevelt, M. (2001). Canine candy stripers. Time, 158(5), 52-54.
- Serpell, J. A. (2000). Creatures of the unconscious: Companion animals as mediators. In A. L. Podberscek, E. S. Paul, & J.A. Serpell (Eds.), Companion animals and us: Exploring the relationship between people and pets (pp. 108–124). New York: Cambridge University Press.
- Spence, L. J., & Kaiser, L. (2002). Companion animals and adaptation in chronically ill children. Western Journal of Nursing Research, 24(6), 63–80.
- Vidrine, M., Owen-Smith, P., & Faulkner, P. (2002). Equine-facilitated group psychotherapy: Applications for therapeutic vaulting. *Issues in Mental Health Nursing*, 23(6), 587–603.