Handbook on Animal-Assisted Therapy

THEORETICAL FOUNDATIONS AND GUIDELINES FOR PRACTICE

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CHAPTER 2

The Use of Animals to Benefit Humans: Animal-Assisted Therapy

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Animals have generally played a great role in human ecological adjustment. Just as credible a reason as any for the domestication of animals is their use as pets. In other words, there is much reason to believe that man's psychological needs were the primary cause for domestication of animals as that man needed to use animals for such material purposes as the saving of human labor and the satisfaction of a hunger for food.

Boris M. Levinson (1969)

I. INTRODUCTION

Animals have always been used by human beings, usually for food and then for transportation. When people began to live in villages, more than 15,000 years ago, additional roles included companionship, and the animals began to share the human living space. In all cases, concerns for the ethical treatment
for those animals evolved long after the animals had been pressed into service. Only in the last 100 years have laws been codified to protect animals used for draft or companionship, and only in the last 30 years, with the Animal Welfare Act, has protection extended to animals used in research. The use of animals to assist human therapeutic activities has a long history, but extensive, documented, and organized use is relatively new (Beck, 1985; Beck & Katcher 1984, 1996; Beck & Meyers, 1996; Katcher & Beck, 1983).

From the very beginning, animal-facilitated therapy (AFT) has paralleled the use of animals as pets, and many of the therapeutic uses are extensions of the health benefits now recognized for those who own or interact with companion animals. These included the early observations that people interacting with animals experienced a decrease in blood pressure (Katcher et al., 1983) to the more overt behaviors indicating a more relaxed state (Katcher & Beck, 1986; Wilson, 1991).

The first report, in a recognized medical journal, indicating that animal ownership may have actual therapeutic value came nearly two decades ago. Pet owners experienced increased 1-year survival after discharge from a coronary care unit than nonowners (Friedmann et al., 1980). The effect was small but statistically and medically significant.

Evidence that is more recent indicates animal contact not only aids recovery from cardiovascular disease but also may even help prevent it (Anderson et al., 1992). In Australia, pet owners had lower systolic blood pressures and plasma cholesterol and triglyceride values when compared with nonowners and, thus, in theory, had a reduced risk of cardiovascular disease. Although pet owners engaged in more exercise, they also ate more meat and "take-out" foods than nonowners did and the socioeconomic profiles of the two groups were very similar (Anderson et al., 1992). Related studies that are still under way are finding that males who do not own animals have more complaints of angina pain than those who do not (Jennings et al., 1997).

Apparently, pet ownership reduces the risk factors associated with cardiovascular disease, and possibly for reasons that go beyond simply influencing risk behaviors. For example, it has been hypothesized that pet ownership improves survival because it influences psychosocial risk factors that lessen the risk of coronary heart disease (Patronek & Glickman, 1993). Considering the frequency of cardiovascular disease in all populations, any intervention that reduces, even slightly, the frequency of heart-related complaints and disease has significant financial implications for any health care system.

The public health and financial implications of animal ownership may be particularly important to older adults, who may have less social support than younger people because their human companions may have died or live at some distance. One study prospectively evaluated 938 noninstitutionalized elderly Medicare patients. Those people who owned pets appeared to experi-
ence less distress and required fewer visits to their physicians than nonowners. While animal ownership generally had value, the most remarkable benefits to health were for those who owned dogs. Medicare patients with dogs experienced fewer physician visits than those without. Most of the people noted that the pets provided them with companionship and a sense of security and the opportunity for fun/play and relaxation (Siegel, 1990). Normal interaction with companion animals may be just one of the things people do that is good for them.

II. THE USE OF ANIMALS AS THERAPEUTIC AGENTS

A small pet animal is often an excellent companion for the sick. 

Florence Nightingale (1820–1910), 
Notes on Nursing, 1860

Long before there was any evidence that animal contact enhanced physical and mental health, animals were being used in therapeutic settings. Much of the early literature documents nothing more than fortuitous interactions with animals that happen to be present in a therapeutic setting (McCulloch, 1983). The animals were to provide a diversion or the joys traditionally associated with pet care. These expectations may be correct, as often the best "medicines" are appropriate concentrations of what is generally beneficial (Beck & Katcher, 1984). Nevertheless AFT studies are always struggling for acceptance in mainstream medicine, and much effort is directed at attempting to find acceptable methods that can validate the specific role of animal contact. It must be remembered that animal interaction is always just a small part of life of people in therapeutic settings. In addition, just how to assess improvement is also an ongoing problem because improvement can be subtle, transient, or delayed.

Just as the therapeutic value of animals is an extension of our keeping of pets, most of the laws and ethical principles that already address animal welfare for companion animals can be appropriately applied to companion animals in therapeutic settings. Like other uses of animals, AFT must be concerned for the welfare and safety of both people and animals. Experience, tradition, and guidelines have evolved for the various programs that use animals in the therapy of people. The most common kinds of AFT programs are (1) institutionally based programs, (2) noninstitutional programs for older adults, (3) service
animals for people with disabilities in the home setting, and (4) horseback riding (equine) programs.

A. INSTITUTIONALLY BASED PROGRAMS

Historically the first AFT approaches were hospital settings for adults, now more common with younger people both in hospital and educational environments (Beck, 1985). The first recorded use of animals in a therapeutic setting was in 1792, when William Tuke used common farm animals in his York Retreat, an asylum run by the Society of Friends, a Quaker group. Pets were part of the treatment for epileptics at Bethel in Bielfeld, West Germany, in 1867. The first well-documented use of animals in the United States involved the rehabilitation of airmen at the Army Air Force Convalescent Center in Pawling, New York, from 1944 to 1945. Sponsored by the American Red Cross, the program used dogs, horses, and farm animals as a diversion from the intense therapeutic programs the airmen underwent. Few records were kept of these and other programs (McCulloch, 1983; Beck & Katcher, 1996).

One of the first studies to evaluate the effects of animals in an institutional setting was conducted by Dr. Samuel and Elizabeth Corson. They recognized the difficulties of finding an appropriate control for an animal intervention, so they chose to work with patients who had failed to respond to any traditional form of therapy. Since nothing had proven useful, any intervention that did improve the situation could be considered effective. By comparing ineffective therapies with animals, the patients served as their own controls. Common ethical practice demanded that the patients continue to receive the traditional therapies as well. The patients were introduced to dogs (and some cats) in the kennels, on the wards, or at their bedsides, whichever was appropriate for that person. Patient and pet enjoyed many sessions together, and many sessions were videotaped to permit analysis of the patients' interactions with the animals and the human therapists. The analyses showed that most of the patients became less withdrawn, answering a therapist's questions sooner and more fully. Subjectively, the patients appeared happier—the immediate response that makes so many converts to AFT. Only 3 of the 50 patients absolutely failed to respond (Corson et al., 1977).

A totally different experimental design was undertaken by Clark Brickel in a hospital-based nursing care facility in California. Instead of using individual animals on a one-to-one basis with each patient, Brickel introduced a single mascot (a cat) into each ward. He based his findings on observations made by the staff. While some negative aspects were reported, such as concern about fleas and allergies, the overall impression was that the cats improved the patients' responsiveness, offering them pleasure and enhancing the general
milieu of the treatment setting (Brickel, 1979). Ward mascots may be easier to integrate into institutions and have many of the same positive effects as individual pets (Beck & Katcher, 1996).

An area of great interest is the Alzheimer's disease client, an ever-growing part of the nursing home population. There is evidence that the presence of a dog, either temporarily or permanently, can increase social behaviors. Behaviors including smiles, laughs, looks, leans, and touches were more normal for many people, and those whose did not appear to benefit from the animal were always the same individuals (Kongable et al., 1989; Batson et al., 1997). There is evidence that older people with Alzheimer's would benefit from contact with animals in their environment (Verderber, 1991).

There are studies that compare subjects exposed to animals and others in similar settings without animal contact. A group of psychiatric inpatients met in a room that had caged birds and a comparative group met in a similar room with no animals. The group in the room with birds was more comfortable talking and participated more than those in the same room without animals present. The effect that animals improve the perceived quality of the environment has many therapeutic implications (Beck et al., 1986).

Although standard clinical methodologies are most usual, AFT scholars should be prepared to look to those of sociology as well. Using ethnographic methods, hospitalized adolescents were perceived to have responded positively to the presence of a dog. The dog was a catalyst for interactions, improved self-esteem, a good distraction, and a sense of safety (Bardill, 1997).

Although small companion animals are used most often in AFT programs, farm animals are employed in some nonurban settings or transported to urban institutions for visitation (Senter et al., 1993).

1. Ethical Considerations with Institutionally Based Programs

Resident animals, often institutional mascots, pose some of the ethical problems that face all owned animals; that is, they must be well maintained with appropriate food, water, shelter, social interaction, and veterinary care. Abuse is a minor issue, especially compared to normal ownership, however, it is important that specific people be responsible for their care to avoid the neglect that sometimes happens because everyone believes the care will come from someone else. In addition, unlike the house pet, institutionalized animals may be on "duty," that is, kept active, much of the day and there is the potential for abuses associated with fatigue and burnout (Iannuzzi & Rowan, 1991). It has been suspected that overt abuse may occur in programs in mental hospitals (Beck et al., 1986) and prisons, though there is little documentation as to the extent of the problem (Katcher et al., 1989). Programs for elderly people must be supervised for covert mishandling because of well-intentioned but
inappropriate overfeeding, the "grandparent syndrome." All programs have to be sensitive to poor management due to oversight of care that might occur because the animal is just one of many in need attention from a busy staff. Because the human residents are captive, special attention must be paid to human desires, fears, and choices where animal contact is concerned (Beck & Katcher, 1984). It would be unethical to provide less attention or fewer services to patients who choose not to participate in any animal-related programs.

Dogs especially have to be selected carefully because breeds and individual behaviors differ widely. It has been suggested that medium size dogs might be best, like the retrievers—the Labrador retriever is perceived to be more calm than the golden retriever, and younger dogs may be too energetic in the nursing home setting (Neer et al., 1987). Using animals just because they are available, for instance, a personal pet of a staff member, may be unethically exposing the animals to stress and the residents to health risks. In a like manner, it is the ethical responsibility of those involved in AFT programs to address all the health implications of having animals in a confined human population that may include people who have decreased disease resistance. Although AFT has a good safety record, as programs involve more people the risks increase. Potential exists for zoonotic infectious or parasitic disease, bite injury, accident, or allergy. To reduce human health issues AFT programs should consider (1) selection of the animals, (2) plans to avoid exposing to animal-allergic people to animals, (3) comprehensive infection-control programs in the institutional setting, (4) designing pet policies with the advice from public health veterinarians, and (5) developing a surveillance program and response to problems (Schantz, 1990). All problems must be reported and evaluated.

A survey of 150 selected U.S. and 74 Canadian humane societies found that 49 (46%) of the U.S. and 49 (66%) of the Canadian society programs ran animal-assisted therapy (AAT) programs. More than 94% used dog and/or cats, 28% rabbits, 15% small mammals, and 10% birds (excluding poultry) in their programs. More than 48% of U.S. and 43% of Canadian programs consulted health professionals about zoonotic prevention. Nearly 10% of community-based and 74% of hospital-based programs had printed guidelines. Potential problems involve rabies, Salmonella and Campylobacter infections, allergy, and ringworm (Walter-Toews, 1993).

Special consideration must be given to people with depressed immune responses, such as those in programs oriented toward AIDS, oncology, Lupus, or organ transplant patients. Veterinary screening for salmonellosis, campylobacterosis, listeriosis, toxoplasmosis, chlamydiosis, and external parasites are particularly appropriate (Reeves et al., 1990).

Nevertheless, animals in nursing homes appear to be quite safe. A survey of 284 Minnesota nursing homes with visiting and live-in animals found
no cases of animal-related infections in a 1-year period (Stryler-Gordon et al., 1985).

Dolphin swimming programs receive positive media coverage, but keeping dolphins in captivity for a therapy that may have limited application raises some concerns. The value of dolphin programs comes from limited self-selected samples (Nathanson & de Faria, 1993; Nathanson, 1998). Even the so-called "swim with the Dolphins" programs, which keep the animals relatively "free," have not been evaluated as to the ability of the animals to return to the wild. Dolphins do show stress in captivity and often do not show the increase in life span seen with other captive wildlife. It remains to be seen if the risks and expense of using dolphins can be justified if similar therapeutic success can be achieved with dogs or other animals that thrive in captivity and easily interact with humans.

Many institutions do not own their own animals but invite people and their animals to visit for interactions with the patients. Visitation programs have become more common and are especially common for nursing home settings (Bustad, 1980).

Visitation programs often use animals from local humane societies, believing that such programs (1) enhance the status of animals, therefore making ownership more acceptable; (2) enhance the morale of their staff, who are often only involved catching or killing unwanted animals; and (3) provide a positive public image of their organization, which improves public support and public donations. Nevertheless, even the Humane Society of the United States (Lockwood, 1986) questions the use of shelter animals as because it feels (1) AFT takes time, vehicles, and money away from their own mission, which is preventing animal cruelty, aiding injured and stray animals, and finding homes for unwanted dogs and cats; (2) some AFT programs are part of research projects, and the Humane Society questions any research using animals; (3) AFT visits keep animals that might otherwise be adopted out of the shelter; (4) the animals return exhausted from visits; and (5) often there is little known about the behavior or past health history of the animals used. Remember that shelter animals are usually not temperament tested, so puppies and kittens might nip, and often little is known about an animal's vaccination status.

In August 1986, in Canada, a puppy given to a local shelter was used for visitation. The shelter was not told that the dog had come into contact with a fox. The puppy was rabid and exposed 139 people, including 62 local neighbors, 6 veterinary staff, 5 shelter personnel, and 60 at a nursing home. The cost for postexposure treatment ranged from $400–700 per person for a total cost of more than $65,000 (MMWR, 1987).

While zoonoses may be a potential problem, programs appear to have a good safety record. Concerns appear to be greater than found. One staff survey about concerns and expectations for AAT were greater before any actual experi-
ence. There were no injuries, some reported improvements, and only some annoyance on the part of residents. Professional staff tended to emphasize benefits and minimize risks of the proposed visitation program, whereas non-professional staff and those with less experience expressed the most concerns. After 4 months, 86% of staff members changed their attitudes to be more positive and 91% after 8 months. Favorable change is more a function of a decrease in expected risk than an increase in expected benefits (Kranz & Schaaf, 1989).

For all of these reasons, the current trend is to use animals known to the handlers, such as the lay volunteers. Volunteer owners enjoy having more time with their animals and most animals appear to enjoy having time with them (Rowan, 1991).

The health precautions that programs take for residential programs are also appropriate for animals that are just visiting institutions.

"Animal assisted therapy differs from animals used as entertainment in that AAT is considered to be an applied science using animals to solve a human problem. It is an interdisciplinary approach using animals as an adjunct to other therapies. It is goal-oriented, using assessment and evaluations procedures" (ref, p. 13). "It is this bonding relationship, used therapeutically, that differentiates AAT from animal entertainment" (ref, p. 13). Animals increase functioning, relationships, activity, and cognitive and spiritual processes (Gammonley & Yates, 1991).

**B. Noninstitutional Programs for Older Adults**

One common belief is that animal companionship is especially important for older adults and many early AFT programs were in nursing homes. What is often not appreciated is that the vast majority of older people live on their own outside of any institutional setting.

In the United States, about 95% of the elderly live in the community; 30% of those live alone (Harris et al., 1993). This adds significance to the growing evidence that animals play a positive role for elderly persons living alone (Siegel, 1990, 1993) and that there should be support for older adults who want to adopt animals from local humane societies.

Nearly 20 years ago, the first pet intervention study compared elderly people (65 years of age and older) living alone who were given either a plant or a small bird. Television ownership (as a control for a new intervention) was also considered. Having a bird appeared to improve morale and increase visits by friends; the birds served as a "social lubricant" (Mugford & M'Comisky, 1975). Since then, there have been programs to facilitate animal ownership,
but there has been no evaluation of the programs to assess the psychological impact on the people or the animal companions.

One study followed 16 homebound clients of a medical services program (65–91, mean 81) who were visited by volunteers alone or with a pet. Vital signs were taken before and after visits. There were no changes when a pet was not included, but both blood pressure and pulse were lower after a pet visit. Interviews with participants showed that the animals were often an important focus of attention and conversation (Harris et al., 1993).

1. Ethical Considerations for Noninstitutional Programs

Although attempts have been made to aid older people in securing animals, little attention has been paid to addressing two major issues facing the senior citizens after they have an animal: (1) Pets are an important determinant to housing choice and (2) many elderly owners have not arranged for the pet if they predecease it (Smith et al., 1992). Being able to keep animals is “very important” to 59% of elderly people and “somewhat important” to another 27% for a total of 86%, yet assisting these people, either legally or financially, to secure an animal companion, is still rare. If indeed, pet keeping is therapeutic, it should be protected and funded as such. What other proven therapeutic modality is denied by landlords? Some people choose to live in suboptimum living quarters because they cannot find appropriate housing that will accept them with their animal companions. Even homeless people, many of whom are elderly, benefit from animal ownership for companionship, friendship, and love, have problems providing food and veterinary care for their pets (Kidd & Kidd, 1994).

The observation that 49.6% of elderly owners have not arranged for the pet if they predecease it raises ethical issues if the person has no one who would take the animal (Smith et al., 1992). Some programs do exist for wealthier people who can donate ahead of time to a university, but the average owner's animal would experience the same fate as any abandoned animal. Perhaps more elderly people would avail themselves of the advantages of pet keeping if people felt animals were more protected while they were alive, and the animal would be more protected afterward. An ethical consideration of any AFT program must address its consequences. At this time, there have been no objective reviews of the animals placed in people's homes.

C. Service Animals for People with Disabilities in the Home Setting

Initially, most people thought of service animals as the dogs that guided the blind in public places. Actually, only about 1400 dogs a year are placed with
blind users by the nine institutions belonging to the Council of U.S. Dog Guide Schools. At any given time, about 10,000 dogs are in use in the United States. The numbers of dogs used with blind people is decreasing, but the number is increasing for those with hearing impairments. About 19 hearing dog programs have placed about 3000 dogs as of 1999. All guide dogs typically work 8 to 12 years. Guide dogs for the blind are usually bred for that purpose, while most dogs for persons with hearing impairments come from shelters or are donated (Clifton, 1993). Regardless of the task the service dog is to play, the animal often provides positive psychological benefits, especially for young people (Mader et al., 1989).

The growth, involvement of professionals, and acceptance of animals trained to serve people in their homes has been one of the great successes of the AFT movement. Animals, mostly dogs, now significantly assist people with vision and hearing loss, physical disabilities, and seizures (Edney, 1993). Although there is the possibility the animals can become victims of fatigue, overwork, and burnout, there is little evidence for these events being common. It has been informally reported that dogs used to guide the blind have more skin and intestinal problems than is usual, perhaps indicating stress. In any event, the problem is far less serious than that associated with people with high-stress jobs. There is always the danger that dogs working with people who use wheelchairs and canes are at risk of injury, but it would be ludicrous to consider the risk significant. Perhaps there is a need for more research on the veterinary needs of the animals used in AFT and more training on how to provide appropriate care for working animals. Veterinarians must better understand the demands placed on service animals and the consequences of any intervention to the human partner. Veterinarians must be sensitive to any abuse, regardless of the cause, and be prepared to work with the service animal user to resolve the problem.

There is a need to assess objectively the use of service animals so they can be considered part of the more recognized approach to help people with disabilities. A variation of using patients as their own controls is the use of the waiting list control, that is, assessing the same patient before and after an animal intervention. In a recent study, people with ambulatory motor impairment received a service dog either 1 month or 12 months after study began. The delay served as a “waiting list control” allowing people to serve as their own comparison subjects. The subjects were followed for 2 years, with five data mail-back questionnaires. The experimental group fared much better than the non-canine-assisted wait-list control group in measures that assessed self-esteem, internal locus of control, and community integration. The dog group required fewer services, resulting in savings of more than $60,000 per dog (Allen & Blascovich, 1996). Note that some serious questions have been raised about this study. The exact match of groups and the numbers of subjects
1. Ethical Considerations of Service Animals

The ethics of keeping a companion animal as a working animal have been questioned, especially in the following three areas: (1) source of the animals, (2) work stress for the animal, and (3) the well-being of the animal after its usefulness is over.

Guide dogs and some other service dogs are bred solely for service; however, only a portion of the total number of dogs bred is usable, meaning there are dogs for which a nonservice home must be found or, at least in theory, the dog must be put to death. Dogs used for more general service, such as helping persons with hearing impairments, can often be found in humane shelters or as donations from owners. The supply side of the industry has received little scholarly attention.

Just as there has been limited study of the animals used in service programs, limited attention has been paid to any humane concerns, which are probably correctable. The lack of critical inquiry is a casualty of the attribution error made about animals—we assume that all is wonderful and never question whether that is indeed true. Nevertheless, the potential for problems exists.

Service dogs are often asked to perform tasks that are physically stressful and not an intuitive part of the animal's behavior. As an example, a harnessed dog pulling a person in a wheelchair often forces the dog to work in an awkward position due to an ill-fitting harness. Pulling a door open can require a great deal of energy. Carrying an additional backpack adds to the dog's heat load. Sometimes the dogs are overweight, thus adding to the physiologic stress of the animal. Many tasks are outside the normal dog repertoire of naturally motivated behaviors, thus requiring verbal rewards. Many of the problems could be lessened if trainers and users had more training on how to work with dogs without causing physical and mental stress (Coppinger et al., 1998). Trainers know dog behavior but do not necessarily understand dog physiology and anatomy. They must recognize that dogs will work for human leaders even beyond their own self-interest.

In general, there is great variation in the training of service dogs, and better communication and networking would benefit both animals and their users (Miura et al., 1998). Some service dog providers insist that a service dog not remain in the home as a pet after its service career is over and it has been replaced with another, younger dog. In addition, the criteria for selection for those eligible for service dogs have to be reviewed; at this time, people with
special needs who are younger than age 16 are not eligible, although there is evidence that animals are important to child development (Melson, 1988).

These issues persist because most providers are somewhat secretive about their methods and the reasons for their policies. The sharing of methods and assessment of programs are issues demanding further discussion.

Service simians (monkeys) are also used by people with special needs. To date, only a limited number of monkeys have been placed and few objective reviews have been done. Ethical concerns include the potential for transfer of zoonotic diseases from primates, the use of shock packs for training and backup, and the need for teeth removal to reduce bite injuries to the human users or their visitors (Iannuzzi & Rowan, 1991). The animals do not appear to remain in service for more than a few years. More information is needed to judge the risk/benefit ratio before we can justify the animal welfare and risks issues. Remember that all new programs appear to take risks and are more expensive than when fully established. Perhaps it is time to assess AFT programs as one would any new intervention. Clinical trials are needed to assess effectiveness, cost, safety, and welfare.

It has been suggested that people with special needs, but who have good physical mobility, could be used instead of a service simian. Elderly people or those with slow mental development could easily aid a wheelchair user at less cost than using trained animals. In this way, society would be helping two humans, not one, without risking an animal's welfare.

D. HORSEBACK RIDING (EQUINE) PROGRAMS

Therapeutic riding or equine-assisted psychotherapy activities including riding and vaulting are designed to coordinate with the overall psychotherapeutic treatment of the patient. The goals include improving self-confidence, social competence, and improving the quality of life, but not specifically learning riding skills (Fitzpatrick & Tebay, 1997). Riding is used with a variety of physical disabilities including cerebral palsy (Bertoti, 1988; Campbell, 1990; Copeland 1991; Piper, 1990). Hippotherapy, in contrast to therapeutic riding, is provided by trained physical and occupational therapists to improve neuro-motor function using horses. It is based on the idea of transfer of movement from horse to patient (American Hippotherapy Association, 1995).

Horseback riding programs are different from other AFT programs in that they require the client to visit the horse's facility, not the other way around. Consequently, most concerns address appropriate husbandry at the stable or barn. There is also a concern for overwork, but all programs appear sensitive to the problem and report that no horse is ever used for more than six consecutive sessions or more than 2.5 hours without a rest (Iannuzzi & Rowan,
1991). Usually, therapeutic riding is only a small part of the horse's riding experience. Most riding programs are well planned, and established organizations provide support for therapy protocols, client safety, and insurance (Copeland, 1991).

III. CONSIDERATIONS FOR THE HUMAN PARTNER OF AFT PROGRAMS

Human–animal interaction is assumed to be beneficial to human health, hence its therapeutic potential. The rationale behind AFT is a logical extension of the long-standing belief that animals are good for people, especially for children, the sick, the lonely, and elderly people. It is difficult to deny the value of a therapy that is inexpensive, embodied strongly in the belief system of our society, reinforces the interests of animal lovers, and is apparently free of adverse effects (Beck, 1985). However, the literature describing the use of animals in therapeutic situations has failed to document conclusively a significant effect of pets for any specific human disease or condition (Beck & Katcher, 1984). Therefore, while there is good reason to believe that animals are beneficial for a vast majority of patients, it is necessary to test whether there is a causal relationship between animal contact and human health in specific, well-defined situations (National Institutes of Health [NIH], 1987). It is not ethical to proselytize the values of AFT for funding and public support without conducting appropriate, objective research on all aspects of it.

The major justification for funding for AFT has been research, not on the animals, but on the humans exposed to the programs. The popular notion that animals are usually beneficial has permitted AFT to flourish remarkably unencumbered by the bureaucracy and precautions usually associated with using human beings for medical research. Nevertheless, it must be recognized that, at least in the United States, there are guidelines for human research subjects. These guidelines require (1) informed consent; (2) confidentiality; (3) right to withdraw at any time, for any reason; (4) assessment of risk; and (5) assessment that the benefits outweigh any risks. Because the long-term effects of most AFT programs have yet to be proven, society has been fairly lenient, permitting most AFT projects to continue. To be sure, AFT has a good safety record, but as programs grow there is a greater possibility of occurrence of low-frequency events. It is society's ethical responsibility not to take advantage of the freedom we have enjoyed and plan programs with appropriate safeguards for the animals, staff, and patients associated with AFT programs. Therefore, it is our obligation to conduct responsible research to validate the therapeutic effects of animals for people in need, while minimizing all risks of discomfort and suffering for both the people and the animals. One way out
of the ethical quandary of employing an animal intervention that has not been specifically proven would be to direct research efforts toward why some people appear to thrive without animal contact or do not avail themselves of the pet experience.

IV. CONSIDERATIONS FOR THE ANIMAL PARTNER OF AFT PROGRAMS

Just as there are guidelines to protect human research subjects, there are regulations to protect animal research subjects. Most animals used in AFT are usually owned by the researcher or institution where the animal resides. Researchers should remember that any vertebrate that is owned or maintained by a university can only be used in ways consistent with institutional animal use and care committees. Fortunately, most of the ethical and animal welfare concerns for animals used in therapy have been specifically articulated, and to the credit of most involved in the field, guidelines have been developed and continue to be improved. Green Chimneys Children's Services has published *People and Animals: A Therapeutic Animal-Assisted Activities Manual* for residential programs with attention to space, maintenance, animal health, and even funding (Senter *et al.*, 1993). Most AFT programs use volunteers and there are guidelines for them and the professionals that depend on them (Bernard, 1995).

Most AFT programs involve animals in institutionalized settings, especially with elderly people, and the Delta Society has developed *Guidelines: Animals in Nursing Homes* to address everything from selection of the animals to evaluation of the program (Lee *et al.*, 1983). The most complete guide is Delta's *Handbook for Animal-Assisted Activities and Animal-Assisted Therapy*, which includes guidelines for a wide range of programs. The guide maintains that (1) the programs that employ animals should meet the planned use of the animal, including predictability of behavior and health, controllability in the special setting, and suitability for situation and client population; (2) there should be standards for the treatment plan and evaluation of the animal's role; and (3) there should be an assessment of the facility addressing appropriate management of the animal while in service and not in service (Fredrickson, 1992). The handbook also includes a "Code of Ethics" which reads:

Code of Ethics for Personnel in Animal-Assisted Activities and Animal-Assisted Therapy. These personnel must: (1) treat people, animals, and nature with respect, dignity, and sensitivity; (2) promote quality of life in their work; (3) abide by the professional ethics of their respective professions and/or organizations; (4) perform duties commensurate with their training and position; and (5) comply with all
This Delta Society code is an excellent start. In addition, there are general guides for helping grieving clients, clients with physical disabilities, and immunocompromised clients, so veterinarians can better serve the animals of people with special needs (American Veterinary Medical Association [AVMA], 1995).

Nondomesticated animals have been used both in their captive settings and placed with people in their own homes. These programs pose some special ethical dilemmas because these animals—though they may be tamed or trained—find human contact stressful. There is also increased risk to both animals and nonhandlers, especially as the animals age (Iannuzzi & Rowan, 1991). At an earlier time, when AFT needed novelty to attract attention and support, dolphin and monkey programs served the vital roles of consciousness and fund raising. Now that AFT is more widely accepted, it is time to use animals effectively and humanely.

V. GENERAL ETHICAL CONSIDERATIONS

There is now general acceptance that animals are therapeutic, and natural surroundings and contact with of nature is good for people (Ulrich, 1993). Viewing nature in general has therapeutic value. In one early study, mildly stressed subjects viewed colored slides of either common nature scenes (excluding built structures) dominated by green vegetation or urban scenes lacking vegetation. Stressed individuals felt significantly better after viewing natural scenes, experiencing increases in positive affect, including feelings of affection, friendliness, and play (Ulrich, 1979).

In a more realistic study, recovery records from hospital patients aged 20–69 who had undergone a cholecystectomy (surgical removal of gall bladder) without undue complications were studied. Those included had no history of psychological disturbance and all had their operations between May 1 and October 20 (1972–1981) because trees have foliage during those months. The patients were matched by sex, age (within 5 years), smoking history, weight at year of surgery (within 6 years), and hospital floor level. Windows on one side of the hospital wing looked out on either a small stand of deciduous trees or a brown brick wall. The same nurses were assigned on a given floor; rooms were all double occupancy and nearly identical in terms of dimensions, window size, and arrangement of beds and furniture. The placement of the window permitted a view from the bed. The patients with a natural view had shorter postoperative stays, had fewer negative evaluations from nurses, took fewer moderate and strong analgesic doses, and had slightly lower scores for minor postsurgical complications (Ulrich, 1984). Perhaps one of the most important
considerations for study is to better understand how companion animals fit into our belief systems about nature and how we can better use all of nature for human health. Almost every AFT study notes that some people do not benefit and perhaps we should be more dedicated to them to see if nature in general has value.

The paramount ethical considerations regarding the animals that are used in therapy are no different from the concerns society has for all animal use—are the animals treated with the respect they deserve? Ethicist Jerrod Tannenbaum (1989) acknowledges the value of AFT but notes "... if is often difficult to find in such [AFT] studies mention of what these contacts ultimately do to the animals. One does not always find a concern about their needs or interests, and an appreciation that they are beings that count for something in their own right and not simply tools for making people healthier or happier" (p. 127). A footnote follows that this criticism cannot be made for Dr. Leo Bustad, who has always been concerned with the animals as well. Tannenbaum asks if AFT is a “one-sided bond” Remember, “a bond must be bi-directional, with each party to the bond offering its attention to the other” (Tannenbaum, 1989, p. 124) and the benefit, to each, must be significant. It has been long documented that stroking an animal lowers one’s blood pressure, presumably an indication of reduced stress (Katcher & Beck, 1987). Dogs (Lynch & McCarthy, 1969) and horses (Lynch et al., 1974) being petted demonstrate a similar lowering of blood pressure or heart rate, presumably for the same reason, or at least as an indication that the animal enjoys the experience. Studies are beginning to look at behavior and physiological indicators of relaxation in animals as they interact with people. It is known that most domestic animals actively try to be with people, presumably for the same reasons humans want to be with them—the comfort of the family, group, or pack. Remember that one requirement of the new Animal Welfare Act for research dogs is that the dogs have access to exercise and socialization, with people—human-facilitated therapy for institutionalized dogs.

Nevertheless, the animal rights community still questions the utilitarian emphasis of AFT, that is, animals as mere “tools” with respect for their inherent worth. Even the pragmatic philosopher Bernard Rollin has said: "... nothing in the PFT movement promotes the intrinsic value of animals" (Lockwood, 1986). While true, I propose that improving the utility of animals has basic value to their existence and therefore to their protection. It is naive to believe that companion and domesticated animals will thrive in a world that had no value for them. But helping people is not enough—their utility to people must not include psychological or physical abuse, and whatever discomfort is absolutely necessary is clearly balanced with benefits that will foster improved health for both the humans and the animals involved.
"Reconciling the risks to the animals with their rehabilitation value is neither simple nor easy unless one follows the dictum that animals absolutely should not be used as means to an end" (Iannuzzi & Rowan, 1991, p. 159). After a therapeutic session has ended, all involved—the recipient of the service, the therapist, and the animal—must have benefited from the experience. In this way, all society will benefit.

At the final presentation of the 1987 NIH Technology Assessment Workshop, Beck and Glickman (1987) proposed that "All future studies of human health should consider the presence or absence of a pet in the home and, perhaps, the nature of this relationship with the pet, as a significant variable. No future study of human health should be considered comprehensive if the animals with which they share their lives are not included."

REFERENCES


