

ANIMAL ASSISTED THERAPY AND YOUNG PEOPLE

A REVIEW OF SELECTED LITERATURE

Prepared for Menzies Inc.

by RHMSS Pty Ltd

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Contents

CONTENTS	I
EXECUTIVE SUMMARY	III
INTRODUCTION	1
Purpose of the literature review	1
Scope of the literature review	1
1. THERAPEUTIC USE OF ANIMALS	3
Background	3
Human-animal interactions and healing: models and concepts	4
The scope of animal assisted therapy	5
Young people and AAT	7
Work with individuals	7
Group settings	8
Farm-based programs	10
Family violence, interpersonal violence and animal abuse	11
Children’s cruelty to animals	12
Measuring childhood cruelty to animals	13
Explanations for childhood cruelty to animals	14
AAT and young people: assessing the evidence	15
2. EFFECTIVE AAT PROGRAMS	17
Selected programs	17
Forget Me Not Farm	17
Green Chimneys Children’s Services	18
Toronto Young Offender Program: Youth and animal pilot project	18
City Girls/Inteventions	19
What makes programs effective?	20
Evaluation	24
Conclusion	25
REFERENCES	27

Appendix 1	29
Appendix 2	31
Appendix 3	36

Executive summary

Animal assisted therapy (AAT) is defined by the Delta Society as a goal directed intervention that utilises the human-animal bond as an integral part of the treatment process. Animals and handlers/owners are screened and trained to meet specific criteria and they work with professionals who help to set therapeutic goals, guide the AAT sessions, and evaluate the client's progress. AAT is distinguished from, but may be used in conjunction with animal assisted activities (AAA), which are defined as goal directed activities that improve a client's quality of life through the use of the human-animal bond. They are not guided by a professional or necessarily evaluated.

AAT is based on strong human-animal bonds that are as yet only partially understood. Such bonds are part of the wider context of our evolutionary history, in which the natural environment played an important role in survival and helped shape the diverse strands of human development. In our long common history with animals, there is evidence of an association between animals and human health and well-being, traced through mythology, the incorporation of animals into spiritual beliefs, belief in the healing nature of human-animal relationships and much more recently, the importance of companion animals in our lives.

Animal assisted therapy occurs in diverse settings with different age groups and utilises different types and breeds of animals depending on who the clients are and the setting and structure of the program. The main settings identified in the literature where animal assisted therapy is used with children and adolescents are individual therapy, either in private practice or an outpatient facility; in psychiatric and mental health facilities; schools for children with special needs, and in long or shorter term residential or group settings such as farms and camps. There are also programs utilising animals and/or plants run for young offenders, in residential and other services for young people who have been sexually or emotionally abused and in programs for young people dealing with drug abuse issues.

While the use of animal assisted interventions has increased substantially over the past three or four decades, especially in the USA, the body of evidence-based research concerning its effectiveness is not large. Some of the claims for positive outcomes are based on anecdotal evidence and there is still much to be understood about the field. This is to be expected in a relatively new field, especially one that is based on complex bonds between humans and animals that need more exploration. Calls for further research are legitimate. However, findings from research about the nature and quality of animal-human interactions, a small but growing body of empirically-based research, some well-documented individual case studies, and a number of documented and evaluated programs incorporating AAT, are sufficiently positive to conclude that AAT is beneficial for some groups, especially if it is integrated with other services.

The documented experiences of several farm-based programs in the USA that incorporate structured animal assisted interventions suggest that they have much to offer severely disadvantaged children and adolescents who find it difficult to relate to and trust others. Many of the troubled children and adolescents who come to these farms have been abused themselves and/or have witnessed violence against other family members. Key elements of the farm-based services outlined in the review include:

- ✧ their capacity to work with very disadvantaged children and adolescents
- ✧ incorporation of a variety of cooperative arrangements with other groups and organisations involved in the care of children, and the care of animals and plants
- ✧ productive and creative involvement of volunteers

- ✧ the diversity of program elements included, e.g. ‘outreach activities’; a mobile farm which visits children in other settings; a wildlife sanctuary; conservation activities; staff training activities for other groups; and the breeding of animals for other groups, programs and agencies
- ✧ their capacity to involve parents together with their children, a key criterion identified for developing new Menzies services (Success Works 2002).

Farm-based programs also have the potential to be integrated with a range of other programs, including therapeutic, environmental, agricultural, educational and community programs, and to contribute to community capacity building, a key factor in ensuring better outcomes for children and young people in the long term.

Elements of effective farm-based programs incorporating AAT identified in the literature include:

- ✧ careful selection of staff
- ✧ management and staff understanding of the nature and quality of human-animal bonds
- ✧ management and staff awareness of the variety of children’s attitudes and behaviours towards animals, including the complex psychological processes that often underlie children’s cruelty to animals
- ✧ staff commitment to animals in general and to the animals they work with in particular
- ✧ management and staff understanding of the relationship between and the effects on children and adolescents of different forms of violence in families, including violence against pets
- ✧ careful selection of volunteers who are appropriately trained
- ✧ careful selection of animals for the program and ongoing attention to their needs, their working conditions and their health.

Programs are most likely to be effective where goals are appropriate and clearly articulated, and outcomes are evaluated. Program goals appropriate to children and young people include: promoting feelings of self-worth; promoting responsibility and independence; encouraging the care and nurturing of other living things; assisting exploration of feelings, fears and anxieties; mastering developmental tasks; teaching children and adolescents about birth, life and death; promoting companionship, love and warmth; promoting understanding of parenting, including the necessary sacrifices and the stresses involved, and promoting understanding about the interdependence of human beings and the environment.

It cannot be expected that AAT will be equally appropriate for all children and adolescents, nor that it will be a panacea for all ills. However, the research suggests that the human-animal bond has qualities that make it a potentially strong and effective resource in working with children and adolescents who have grown up in an environment where they are neglected, abused or rejected by adults who have the responsibility to care for them. Animal assisted therapeutic intervention in a specially designed farm environment provides a supportive context for interaction with animals, opportunities for children and adolescents to experience the healing qualities of the human-animal bond, and opportunities to learn from the documented potential of animals to provide a calming, unqualified acceptance and love.

Introduction

Purpose of the literature review

A service development feasibility project commissioned by Menzies Inc. in 2002 identified two important directions for the future of Menzies services (Success Works 2002). They were the development of preventative or early intervention services and the expansion of services for children aged 8-12 years, a relatively neglected age group in the geographical area served by Menzies. Following discussion of the review's findings, it was decided to fully explore possibilities for developing a therapeutic farm as a means of working with children and young people. The report of the service development project identified a possible model for such a farm, the Forget Me Not Farm located in Sonoma County, California. The Farm has been operating for some years. It has a range of programs where animals and plants are used in working with young people who through abuse or neglect find it difficult to relate to and trust others. It is one of a small number of similar programs in the USA.

The report by Success Works included detailed information about the programs, requirements and operation of Forget Me Not Farm. Menzies decided however, that a broad review of the literature on animal assisted therapy was necessary as part of further development of the proposed project. A literature review was therefore commissioned to 'confirm the validity of (animal assisted) therapy and provide advice about key aspects required prior to the Menzies Inc. Committee of Management making a final commitment to proceed, and for presentation to potential partners and funding bodies' (Project Brief).

Scope of the literature review

The primary focus of the literature review is the use of animals in therapeutic interventions for young people who have been affected by any form of child abuse or who have been affected by or witnessed domestic violence. Some information about the therapeutic use of plants and gardening is also included; however, the main focus is on animals, as there is considerably more research-based information available concerning the use of animals. The literature does not always specify the age of children and young people involved, but information about age is included wherever possible. The majority of programs described and most of the literature reviewed comes from the USA; however, Australian research and relevant program information is included wherever possible. Australian papers cited are asterisked in the list of references.

The review focuses on available evidence-based research, an important consideration in current service funding and delivery, and therefore in planning service development. It also includes anecdotal accounts. There is a considerable amount of anecdotal evidence about successful use of animal assisted therapy. Case studies of individual young people whose lives have been positively changed by interventions using animals, and to a lesser extent with gardening and plants, are common in the literature.

However, although animal assisted therapy has been practiced for some decades across a range of groups and in many settings, especially in the USA, compared with more conventional approaches it is a relatively newly developed area of working with children and young people. As a consequence, to date there is not a large body of empirically based research; nor are programs always rigorously and continuously evaluated. The review includes comment on issues related to research and evaluation of animal assisted therapy for children and young people.

Section 1 of the literature review is about the scope of animal assisted therapy (AAT). It begins with a general scoping of the available literature about the use of animals, and to a lesser extent plants, in therapeutic interventions with people who suffer various forms of disadvantage. It then surveys literature relevant to therapeutic interventions with under-18-year-olds, including interventions specifically designed for, or which include 8-12-year-olds.

Section 2 of the review is about what makes for an effective program. It first describes a small number of programs especially relevant to the Menzies proposal, then discusses aspects that have been identified in the literature as essential to effective outcomes, either for screening, early intervention or as a later therapeutic intervention for young people who have been abused and/or grown up with domestic violence. The discussion draws on what has been learnt from therapeutic farm programs but also includes findings from the general literature and other types of animal assisted intervention programs that are likely to be relevant to the Menzies proposal.

Overall, the review draws on a range of literature – program descriptions, analyses and research reports – from diverse disciplines and frameworks. The field of animal assisted therapy crosses conventional academic discipline and field of study boundaries. It draws on many areas of interest, including the nature of connections between human beings and the natural world, general and developmental psychology, theories of animal behaviour and animal training theory and practice.

Brief outlines of two other areas of research are also included, firstly because their inclusion adds to an understanding of the use of animal assisted therapy with children and young people whose lives have been affected by sexual, physical and emotional abuse, and secondly because they are useful in assessing the effectiveness of animal assisted therapy. The two areas are literature on the growing recognition and understanding of connections between cruelty to animals and interpersonal violence, and cruelty to animals in childhood.

A detailed review of all of the different strands that impact on animal assisted therapy for groups of young people Menzies is in touch with is beyond the scope of this report. Rather, the review aims to show in a concise way how each is relevant to the focus of the review and how each adds to an understanding of what makes for effective interventions. The review should be considered as an introduction to the field. Animal assisted therapy has a wide appeal and attracts comment from people from many different perspectives. Because the different perspectives all have something to offer and because the area is relatively new as far as conceptual development and empirical research is concerned, there is still much to be learnt.

1. Therapeutic use of animals

Background

Bonds between humans and animals are the foundation for understanding animal assisted therapy (Fine 2000a). Such bonds are part of the wider context of our evolutionary history, in which the natural environment played an important role in survival and shaped the diverse strands of human development. The natural environment includes the different types of landscapes in which our ancestors lived, as well as plants and animals. There are strong arguments for considering that the natural environment and human responses to it are as central to human history as is social behaviour (Wilson 1993, cited in Gullone 2000). The connections between human beings and the natural world are at the heart of Wilson's (1984) concept of biophilia, which is described as an inborn human tendency for human beings to have an interest in nature and the animals coexisting with them. The dramatic changes that human beings have made to the natural environment are also likely to have a continuing and profound effect on general human well-being (Gullone 2000).

Most cultures have a rich mythology involving animals, and early historical accounts show that the human-animal bond has a very long history. There is evidence that animals have played a part in human ideas about health, well-being and illness for most of human history, although this history is somewhat sketchy and open to misinterpretations through a tendency to view the past through present day concepts and understandings (Serpell 2000). In a historical exploration of the value of human-animal relationships, Serpell (2000) refers to ancient beliefs in shamanism, the role of animals as guardian spirits and the animism of classical and mediaeval times. Within these belief systems, offended animal spirits were often believed to be the source of illness, injury or misfortune and they could be called on, through a mediator with special powers, to help in healing.

In the modern era, such supernatural beliefs were rejected as anthropocentric and monotheistic belief systems took hold, putting human beings and human manifestations at the centre of understandings about the world. However, animals continued to play an important part in human development as sources of food, means of transportation and later, for companionship. In the period of the Enlightenment through to the 19th century, animals were seen to have a positive role in the socialisation of children and the mentally ill. One of the earliest examples of animals being incorporated as a healing intervention is thought to be their use in the York Retreat, an in-patient facility for the mentally ill in the 18th century run by a Quaker (Serpell 2000). There is other evidence too, including the oft-quoted statement from Florence Nightingale, who in 1860 wrote that 'a small pet animal is often an excellent companion for the sick' (cited in Beck 2000).

The rise of scientific medicine and scientific psychology in the early part of the 20th century shifted the focus of healing and rehabilitation to other treatments and it was not until the second half of the century that interest in animal assisted therapy and the broader recognition of the importance of companion animals came to prominence. The burgeoning of interest has been such that the Delta Society, an international, not-for-profit organisation whose purpose is to 'promote animals helping people improve their health, independence and quality of life', estimated that there are about 2000 animal assisted therapy programs in the USA (Rowan and Thayer 2000). Psychotherapy and physical rehabilitation with dogs are the most common programs.

Human-animal interactions and healing: models and concepts

Various frameworks have been put forward to understand and explain why human-animal interactions may have healing qualities.

Biophilia

Wilson's (1984) biophilia hypothesis is based on the premise that our attachment to and interest in animals stems from the strong possibility that human survival was partly dependent on signals from animals in the environment indicating safety or threat. The biophilia hypothesis suggests that now, if we see animals at rest or in a peaceful state, this may signal to us safety, security and feelings of well-being which in turn may trigger a state where personal change and healing are possible (Schaefer 2002).

Pet ownership

Levinson (1969) and others suggest that the long experience of co-existence between animals and human beings evolved beyond utilitarian considerations such as animals as sources of food, labor and religious practices, into a human need for animal companionship. The level of pet ownership in many societies reflects the importance of the human-animal bond and the multiple roles they play in our lives. Robin and ten Bensele (1985) summarised studies of pet ownership and the socialisation of children and found support for the role of pets as energetic playmates, a bridge to friendship with other children, a means to teach responsibility, a source of unconditional love, a loyal and devoted 'mother' figure/substitute and in turn, someone on which to lavish 'motherly' affection. Pets are seen as providing many benefits including companionship, security and feelings of being loved (e.g. Siegel 1990, Newby 1999).

Evidence for the positive role animals play in child and adolescent development is largely qualitative; however one study suggested that there were four factors in which children's relationships with their pets can be viewed as potentially beneficial (Bryant 1999 cited in Fine 2000). They were (a) mutuality, the experience of both giving and receiving care and support for the animal; (b) enduring affection, children's perception of the lasting quality of the relationship with the pet; (c) enhanced affection, the child's perception that the relationship makes them feel good as well as important; and (d) exclusivity, the child's confidence in the pet as a confidant. Bryant also pointed out a child's relationship with a pet has limitations and constraints, including the demands of having to take care of the pet, grief at its loss, or rejection of the child by the pet.

Pet ownership and health

A number of studies suggest links between human-animal interaction and quality of life in terms of general physical and psychological health. A substantial number of the studies have focused on the effects of pet ownership. Overall, studies indicate that pet ownership has benefits for health, although more research is needed, especially to tease out whether there are circumstances in which this may *not* be true. A lack of research funding for the area of inquiry about pet ownership is a possible restricting factor (Rowan and Thayer 2000). One of the most significant studies, according to Rowan and Thayer (2000), is an Australian study of the effect of pet ownership on cardiovascular health. Anderson et al. (1992) analysed data on more than 5000 people over a three-year period and found clear differences between those who owned pets and those who did not. Women over 40 who owned pets and men of all ages who owned pets had lower blood pressures and one in five had lower plasma triglyceride levels. Other studies have found measurable chemical changes following positive interaction with animals (see for example Odendaal 2000).

Relationships and attachment

Other frameworks suggest that bonds between humans and animals may be seen in terms of attachment theory and what we know about the importance of relationships in human development. Human development takes place in the context of multiple relationships, especially early relationships with people who are expected to have unconditional love for us and with whom strong attachments are formed. It is suggested that human-animal relationships can, along with other relationships, provide opportunities for growth, the development of self-esteem, trust and understanding. This framework is perhaps especially relevant for the group of young people Menzies works with.

The scope of animal assisted therapy

The word ‘therapy’ became commonplace in the late 20th century and currently tends to be used relatively loosely in general conversation. It is used to refer to very diverse curative and healing practices and approaches, some of which, such as psychiatry and psychotherapy, are subject to regulation and control through legislation but many of which are not. Given the growing usage of the term ‘therapy’ in everyday communication and the very different practices it may refer to, it is perhaps not surprising that the term ‘animal assisted therapy’ is also sometimes loosely used in the literature regarding activities and practices that utilise the bonds between humans and animals as a means of personal change and rehabilitation.

The definition developed by the Delta Society offers a broad umbrella for the diversity of approaches to AAT and the settings in which it is practiced. They define AAT as a goal directed intervention that utilizes the human-animal bond as an integral part of the treatment process. Animals and handlers/owners are screened and trained to meet specific criteria and they work with professionals who help to set therapeutic goals, guide the AAT sessions, and evaluate the client’s progress (Gammonley et al. 1996, cited in Granger and Kogan 2000). Alternatively, individual professional practitioners may use their own animals who are not necessarily trained. AAT is distinguished from animal assisted activities (AAA) which are defined as goal directed activities that improve a client’s quality of life through the use of the human-animal bond. They are not guided by a professional or necessarily evaluated. (A list of goals or planned outcomes relevant to young people in Menzies services is included in Section 2).

Animal assisted activities cover a very wide range of activities that include volunteers visiting hospitals and aged care facilities with their companion animals, children visiting farms, certain zoo programs etc. The distinction between AAT and AAA is reinforced by the following comment: ‘A clear distinction should be made between emotional response to animals, that is, their recreational use, and therapy. It should not be concluded that any event that is enjoyed by the patients is a kind of therapy’ (Beck and Katcher 1984, p. 419, quoted in Rowan and Thayer 2000).

Animal assisted therapy occurs in diverse settings and utilises different types and breeds of animals. Granger and Kogan (2000) suggest that the specifics of AAT vary according to the species, breed and training level of the animal utilised; the level of training and characteristics of the human partner and/or professional; the nature and purpose of the setting and the client population; and the knowledge level of AAT by individual programs or facilities (p. 214).

Most commonly, animals used include dogs, cats, rabbits, birds, horses, farm animals such as cattle, poultry and pigs; and dolphins, i.e. companion animals and farm and/or domesticated or trained animals. There are, however, some instances of the use of animals outside this general description, for example cats which, though not strictly feral, lived in semi-wild conditions close to a psychological service in a rural setting (Wells, Rosen and Walshaw 1997).

Dogs are almost certainly the most commonly used animals overall. As we will see later, farm-based programs utilise a variety of domestic, farm and wild animals and birds, although wild animals are almost always injured or sick and are kept only until they can be returned to the wild. AAT with horses is described as offering a range of benefits for people with physical disabilities including improved balance and arm and leg coordination and increased muscle strength, mobility, self-esteem, attention span and self-control (Granger and Kogan 2000). The specific goals of various forms of AAT utilising horses vary. Hippotherapy (literally ‘therapy with the help of a horse’) is a passive mode of riding in which the horse moves the rider; riding therapy is similar but may be either passive or active; riding for rehabilitation involves the rider taking control over the horse, and vaulting is a variation of riding therapy aimed at improving coordination, balance, etc but which also involves communication and trust between rider and horse (Granger and Kogan 2000, p. 217).

Interaction with dolphins is widely promoted as assisting human well-being in general. Dolphins are also utilised with children with special needs to enhance perceptual–motor skills and cognitive functioning (see for example the work of Nathanson and his colleagues in the Dolphin Human Therapy project, www.dolphinhumantherapy.com). A number of studies by Nathanson and his colleagues suggest that the combination of the nature of dolphins, their interaction with humans and a water environment facilitates development of skills for special needs children at a faster rate than that of traditional therapies (for example, Nathanson et al. 1997).

As far as settings are concerned, Beck (2000) suggests that the most common types of animal assisted therapy programs are institutionally based programs, non-institutionally based programs for older adults, service animals for people with disabilities in the home setting and horseback riding programs. Institutions include long term care facilities, hospitals, schools, mental health institutions and prisons. Practitioners in private practice also use animals where they assess this approach to be of potential benefit for individual clients.

AAT has been used with people of all ages from the elderly to young children. Programs span a wide range of situations and conditions, including older people with Alzheimer’s disease, the emotionally and mentally ill, developmentally delayed children and adults and children with Downs syndrome, cerebral palsy, brain damage and learning disabilities. The key factor of all such programs that can be called animal assisted therapy is that animals are utilised not just as entertainment or for companionship but in a goal-directed way that is assessed and evaluated for its impact. They also involve trained workers and suitably selected animals.

Granger and Kogan (2000) identify a variety of structures and approaches to AAT. They are:

- ✧ University-affiliated programs, which usually carry benefits of access to multidisciplinary expertise and resources
- ✧ Nonprofit organisations, with potential benefits of access to funding sources, volunteers, team-building experience and an organisational structure.
- ✧ Agency-based programs
- ✧ Individual volunteer and independent practitioner
- ✧ Human-animal intervention team. This approach involves a team effort between the animal, the owner/handler and the agency professional with the emphasis on a team approach to specifying what the objectives of the AAT are, and using the expertise of each team member to achieve them. The approach has been used successfully in a school setting where owners and companion animals, staff from a multidisciplinary university-based team and special teachers in schools work together; however, those who developed the approach suggest that it could be applied to any institutional setting (Granger et al. 1998).
- ✧ Professional with a companion animal, in a private practice or outpatient facility as an adjunct to therapy where the therapist considers it may be beneficial for a client.

- ✧ Staff member with a companion animal
- ✧ Volunteer with a companion animal, including professionals or lay people who want to be involved in an AAT program.

The potential advantages of various structures and approaches, in terms of planning an effective program, are outlined in Section 2. In general, there is considerable potential for developing partnerships and strategic alliances around AAT programs, not least because AAT and AAA cross discipline boundaries, involve different areas of expertise related to human beings and animals and often make extensive use of volunteers in conjunction with professionals and other trained workers. The integration of interests and groups in turn provides opportunities for building the capacity of communities to better deal with individual and social problems.

Young people and AAT

Current interest in the use of animals in therapy with young people is generally attributed in large part to the work of Boris Levinson, a child psychologist working and writing in the USA in the second half of the twentieth century. Levinson wrote extensively and with understanding about his observations of how the presence of animals helped the therapeutic process with children and young people (see, for example, Levinson 1969).

Levinson's first experience of the positive impact of animals in a therapeutic situation was unplanned. He was having difficulty in establishing a connection with a particularly withdrawn young boy he was working with. It was becoming likely that the boy would have to be hospitalised as a last option, following the failure of other attempts to treat him. The distressed parent and the young boy arrived at Levinson's office early one day for an appointment and were greeted by his dog. The boy responded to the dog, and although the boy's mother tried to intervene and separate them, Levinson encouraged her to let the boy and the dog interact. This was the beginning of a positive therapeutic relationship with the child, in which Levinson's dog stayed in the room with the two and became an integral part of the work. The boy began talking to the dog and eventually to Levinson. It was apparent to Levinson that the boy's interaction with the dog allowed the child to trust him and was the key to building a solid working relationship.

When Levinson first made his observations public, he was greeted with scepticism and outright rejection by some of his colleagues. However, since then others have described many instances where seriously disturbed and alienated children and young people have been able to establish positive connections and relationships with a practitioner who has introduced an animal (or sometimes a bird) into the therapeutic environment.

The main settings identified in the literature where animal assisted therapy is used with children and young people are individual therapy, either in private practice or an outpatient facility, in psychiatric and mental health facilities, schools for children with special needs, and in long or shorter term residential or group settings such as farms and camps. There are also programs utilising animals and/or plants run for young offenders, in residential and other services for young people who have been sexually or emotionally abused and in programs for young people dealing with drug abuse issues.

Work with individuals

The observations of individual practitioners provide a useful indication of the potential benefits of AAT in other settings. Levinson found that animal assisted therapy worked best with particular types of children – those who were non-verbal, inhibited, autistic, schizophrenic, withdrawn, obsessive-compulsive, or culturally disadvantaged (Levinson 1964). It should perhaps be noted that at least some of these presenting problems may result from physical, sexual or emotional abuse.

Practitioners who have introduced companion animals or birds into individual therapy sessions (either by design or initially because the animal accidentally came into the situation) have observed and recorded a number of benefits. They suggest that, for some clients, animals can

- ✧ ease the stress of the initial stages of therapy
- ✧ help establish rapport
- ✧ give a sense of comfort
- ✧ act as a 'social lubricant' to facilitate communication with the therapist
- ✧ have a calming effect on some clients, and
- ✧ lead children and young people to see the therapist and the environment as less threatening.

Their presence may also be a catalyst for expressing and displaying emotions and help to trigger comments that disclose deep feelings and memories (Fine 2000b). It has also been noted that children interpret interaction between the psychologist or other practitioner and the animal as the practitioner caring for and understanding the animal. Clients are therefore more able to accept that they too will be cared for and understood by the therapist.

Children may be reluctant to talk about their fears and what goes on at home but be more comfortable talking to an animal or talking about the animals' feelings. Reichert (1998) found that AAT in conjunction with story telling could be an effective tool in individual counseling for sexually abused children, encouraging the child to feel at ease and talk more readily about their feelings, although the author cautions that the approach cannot be applied to all children, especially those with a history of aggression towards animals.

The fact that most animal assisted therapeutic interventions utilise a volunteer together with their companion animal, and therapists generally work with their own pets, may be a significant element in the situation. Katcher (2000) suggests that we do not know the extent to which the client's response to the animal is conditioned by the behaviour of the owner. He speculates whether responses would be different if the field became more professionalised in the future and 'there were more health professionals who are not particularly bonded to animals or the animal used in therapy' (p. 470). The importance for program effectiveness of having staff who are committed to animals (and to the wider environment in which they and the animals work) is noted in Section 2.

An interesting example of the use of animals, which perhaps falls into the category of animal assisted activities (AAA) rather than AAT, is the use of therapy dogs to help shy and/or reluctant readers. Some programs use animal owner volunteers and others do not; however, the dog is the 'listener' for the child (*Time* 2002). The example reinforces the common sense observation that interaction with companion animals and pets is pervasive and extends to many areas of life.

Group settings

AAT has been used in a variety of group settings with children and adolescents. The presence of a dog in a psychiatric unit in a hospital was seen as 'redefining reality' for adolescent patients (Bardill and Hitchinson 1997). Thirty adolescents were interviewed and detailed patient journals were kept for the study. Both the adolescents and their families were more likely to see the unit as a homely environment than a psychiatric ward. Other themes that emerged in patient journals and interviews were the dog as a friend, the dog as unconditionally accepting, as a catalyst for teaching and learning, and as a distracter from problems. An additional interesting observation from the study was that the dog was seen (by patients and staff) as having a 'sixth sense' about when young people were going through a crisis and especially needed its comforting presence. This reflects the belief sometimes voiced by pet owners that their companion dogs know when they are feeling bad.

Rew (2000) collected qualitative data from 32 homeless youth aged between 16 and 23 years who participated in focus groups and a sub-sample of 10 15-23 year olds were interviewed individually. Analysis of data using manifest and content analysis techniques revealed that 13 of the young people identified their pets as companions that provided unconditional love and reduced feelings of loneliness, and were believed to improve their owner's health status.

Katcher and Wilkins (1998) explored the impact of animal assisted activities with children with conduct disorder (CD) and attention deficit hyperactivity disorder (ADHD). The essential feature of conduct disorder is 'a repetitive and persistent pattern of behaviour in which the basic rights of others or major age-appropriate societal norms or rules are violated'. Their study is interesting for its approach and its relatively sophisticated method but also for the research and measurement issues it highlights. It is therefore discussed in some detail.

A group of children with CD and ADHD was randomly assigned to an Outward Bound Group and a Companionable Zoo group for a period of six months, in addition to their regular school curriculum. The authors concluded from a detailed analysis of outcomes after the six months that animal assisted therapy and nature education had substantial and persistent positive effects for the children, and that children who find it difficult to learn in a regular school setting are more responsive to learning tasks and have less symptoms when they are participating in the care of animals and engaged in nature study (Katcher and Wilkins 2000).

However, the findings require some comment. For therapeutic reasons, it makes sense to provide children with a rich experience through animal assisted therapy; nevertheless, the richness of the experience makes it difficult to determine which elements lead to positive outcomes (Fawcett and Gullone 2001a) and, as the researchers themselves acknowledge, exactly what is the contribution of each of the elements to the overall effectiveness of the program (Katcher and Wilkins 2000). The absence of any detailed comparison with the elements of the Outward Bound experience also make it impossible to determine what it was about the zoo experience that made for success (Fawcett and Gullone 2001a).

There were many different animals involved in the program and each child was required to choose an animal to adopt. There is some evidence that we respond to different animals in different ways. Zasloff (1996) found differences between responses to the Companion Animals Scale when items relating to dogs were included or not. He concluded that 'the results indicate the importance of clarifying both the commonalities and differences of human interaction with various companion animal species' (p. 139) – reinforcing the sub-title of his article, 'a dog is not a cat is not a bird'.

Children in the Katcher and Wilkins study were given some general rules about treatment of the animals and a relatively large number of specific tasks associated with caring for their specific animal, including learning their biology, the proper handling and care of the animal, weighing, measuring and charting their growth and learning to breed the animal and care for the mother and her young. There were also camping trips and demonstrations of their pet to other children or adults in a geriatric or rehabilitation institution. Fawcett and Gullone (2001a) suggest that the overall responsibility that children were expected to assume, rather than, or as well as, any particular component of the experience, may be an important element related to the success of the intervention. The authors of the study also note the important positive impact of the relationship children formed with the animals (Katcher and Wilkins 2000).

The other confounding feature of the study was the reliance on teacher reports on the Aschenbach Child Behaviour Checklist as the chief formal behaviour assessment measure. The teachers were aware of the conditions of the study and this may well have biased their responses to the Checklist (Fawcett and Gullone 2001a).

Some of the points raised in this discussion of the Katcher and Wilkins study are referred to in the discussion of research issues in relation to animal assisted therapy at the end of Section 1.

Farm-based programs

Farm-based programs, residential, non-residential or a mixture of both, cater for at risk children and adolescents and those who have difficulties coping as a result of neglect and abuse. They use a variety of domestic, farm and wild animals, although wild animals are generally included only because they have been taken in as sick or injured and will be returned to the wild as soon as they are rehabilitated. Farms such as Forget Me Not Farm in Sonoma County, California and Green Chimneys in Putnam County, New York, also have extensive gardening and plant programs, which allow children to be involved in the growing and nurturing of plants. These two programs are discussed in more detail in Section 2.

Important aspects of therapeutic farm programs are:

- ✧ integration of many elements and experiences for young people in a natural environment which includes plants and animals
- ✧ their capacity to work with very disadvantaged children and adolescents
- ✧ the diversity of breeds and types of animals and birds that are able to be integrated into a program
- ✧ incorporation of a variety of cooperative arrangements with other groups and organisations involved in the care of children, and the care of animals and plants
- ✧ the diversity of program elements, which may include for example, 'outreach activities'; a mobile farm which visits children in other settings; a wildlife sanctuary; conservation activities; staff training activities for other groups; and the breeding of animals for other groups, programs and agencies
- ✧ their capacity to involve parents together with their children.

The partnership between Forget Me Not Farm, the YWCA and the Humane Society of Sonoma County is of particular interest. Since 1992, the YWCA has partnered with the Humane Society to offer children aged 3 years and over residing with their mothers in the YWCA Safe House (for women who have left situations of domestic violence) the opportunity to participate in Forget Me Not Farm. Children are introduced to the elements in which plants and animals grow; they experience the harvest cycle and participate in activities around the farm. The YWCA reports that the following needs of mothers and children are served by the program:

- ✧ the need for play and fun and respite from the stress of living in a crisis shelter environment
- ✧ teaching compassion and communication between humans and animals and between humans (i.e. parents and children, children and children, parents and other parents, clients and program staff)
- ✧ helping to focus attention and behaviour on activities that promote positive interactions and empathy (personal communication to Menzies).

Green Chimneys organises We Are Family Week-ends, during which the children in out-of-home care, members of their families and staff get together, the purpose being to build bonds and understanding about the shared nature of the task of healing young people so that they can leave the Farm. A series of human-animal interactions is built into the weekend.

Involving parents was identified among the key criteria for developing new Menzies services (Success Works 2002). While parental involvement is not possible or desirable in every individual case, parents' involvement in early intervention programs is crucial and in many cases may contribute to helping young people deal positively with difficult issues in their lives. It has potential benefits for young people, their parents and other family members and at a wider level helps to build stronger connections between troubled families and the communities in which they live.

The potential for farm-based programs to be integrated with a range of other programs, including therapeutic, environmental, agricultural and community programs, and to contribute to community capacity building is discussed further in Section 2.

There is little doubt that many children, young people, and parents and other family members have gained considerable benefit from programs such as those run by Forget Me Not Farm and Green Chimneys. Much has been learnt over the years about organising and implementing effective farm-based programs for children and young people who are severely disadvantaged. Programs have not always been evaluated in the rigorous way some commentators would like to see; however, the evaluations that have been done are encouraging. A one-year study at Forget Me Not Farm completed in 2001 documented positive changes in the anti-social behaviour of children attending the Farm. A second study, measuring the effect of the animal assisted therapy intervention using depression and anxiety scales with a selected group of teenagers is scheduled for completion in early 2003. An evaluation of the YWCA Safe House Program will include information about the effectiveness of the Forget Me Not Farm program for their clients.

Family violence, interpersonal violence and animal abuse

In order to more fully understand the potential role of animal assisted therapy with the young people Menzies works with, the following discussion focuses on two areas of research which are receiving growing attention in the USA and are beginning to be discussed in Australia. They are the connections between cruelty to animals and interpersonal violence, and childhood cruelty to animals.

In the last two decades of the 20th century, research into domestic violence and childhood sexual, physical and emotional abuse burgeoned. Amongst those who work with children, there is now widespread understanding of the impact of childhood sexual abuse on children's emotional and psychological development and its effects into adolescence and adulthood on self-esteem, confidence in the world, a sense of trust in other people, the ability to form positive relationships with others, sense of mastery and a range of other behaviours. There is also a considerable body of literature on the adverse effects on children of witnessing domestic violence.

The co-occurrence of partner abuse and child abuse is also recognised, although on the whole, research on each of the areas tends to remain separate and the various forms of family violence have generally been investigated in isolation (Tomison 2000; Gullone, Johnson and Volant 2002). A review of Australian and international studies (Tomison 2000) found a growing body of evidence that different types of violence may occur simultaneously in the same family and that the presence of one form of violence (child abuse or domestic violence) may be a strong predictor of the other. The review also found that in responding to domestic violence and to child abuse, services too have tended to remain separate. Several Australian studies indicate that child protection workers focus on immediate abuse issues while domestic violence issues are referred to other workers. There is some evidence that as the frequency of marital violence in the family increases the likelihood of children being abused also increases (Pelcovitz et al. 2000, cited in Gullone, Johnson and Volant 2002). The same study found that adolescents who have both witnessed abuse and been victims have significantly more externalising behaviour problems than do adolescents who have witnessed abuse but not been victims.

More recently, the relationship between interpersonal violence (in families or not) and animal abuse has been the subject of research and discussion, with two edited books of readings being released (Lockwood and Ascione 1998; Ascione and Arkow 1999). The conclusion to be drawn from the research so far is that there is a strong association between animal abuse and interpersonal violence. The relationship is much less well researched than other forms of violence, although the anecdotal evidence (including accounts of the behaviour of serial killers in the USA in relation to animals) is compelling.

In the USA especially, where much of the relevant research comes from, a number of interests converge around interpersonal violence and animal abuse. They include Humane Societies and others concerned with cruelty to animals and the many groups and interests concerned about levels of violence in society. Evidence of an association between animal abuse and interpersonal violence has led to attempts to urge greater cooperation between animal and human welfare agencies and to alert workers in both areas to be aware that, if they find evidence of abuse in one area, it may be found in the other. In regard to prediction from one situation to another, Gullone, Johnson and Volant (2002) conclude that: 'It seems reasonable to propose that the presence of animal abuse and determination of its severity may play a role in predicting the severity of partner physical abuse and/or the occurrence of child abuse' (p. 4).

Like other forms of abuse that occur in families, animal abuse can remain hidden and may only come to the notice of authorities in extreme cases, especially where the perpetrator is also being violent to other members of the family who feel unable to speak out against it and stop it. In reviewing studies which identify the co-occurrence of animal and human abuse, including studies which focused on the experiences of women in domestic violence shelters, Gullone, Johnson and Volant (2002) conclude that the studies showed a high incidence of abuse of animals in association with child abuse and domestic violence and a high incidence of children both witnessing violence against animals and copying the violent behaviour.

Studies of women in shelters in the USA and Canada show consistently high rates of violence directed towards their companion animals (between 40% and 70%), most of which was carried out in their presence and some of which was witnessed by children (Gullone, Johnson and Volant 2002). It is relatively common for abusive adults to threaten children and partners by harming or killing family pets, including in their presence. A further finding from the reported studies is that a substantial proportion of women delayed leaving their homes and seeking shelter because they were concerned about the safety of pets.

Because less attention has been paid to animal abuse than other forms of abuse, the frameworks for explaining it are less well developed than those for partner and child abuse. However, the main explanations suggested by the evidence include (a) the abuse is concerned with the exercise of power (b) it reflects the perpetrator's inability to empathise and (c) a 'deviance generalisation hypothesis' which suggests that animal abuse is just one of related forms of anti-social behaviour which tend to become associated, either because one form leads to another or because each behaviour has the same underlying cause (Gullone, Johnson and Volant 2002, pp. 5-6).

Power to intimidate, frighten and control others is an important element for some adult perpetrators of violence against animals (Robin and ten Benschel 1985). It has been argued that perpetrators of abuse against human beings and animals have a reduced capacity for empathy with others, animal or human, and a low level of concern for others.

Children's cruelty to animals

As animals become used more in therapeutic interventions with children and adolescents, it becomes more important to understand the whole range of children's attitudes and behaviours towards animals, including cruelty towards animals. Cruelty to animals has been highlighted as a symptom of mental health problems relatively recently. It was first included in the 1987 edition of the Diagnostic and Statistical Manual of Mental Disorders (DSMIII-R) as one of the symptoms of conduct disorder, which is characterised by a 'persistent pattern of conduct in which the basic rights of others and major age-appropriate societal norms are violated' (Ascione 1993).

Other symptoms of conduct disorder include no concern for the feelings, wishes and well-being of others, callous behaviour and lack of appropriate feelings of remorse or regret. It has been estimated that animal abuse may be present in 25% of conduct disorder cases (reported in

Ascione, Kaufmann and Brooks 2000), a figure that is consistent with the 28% reported by Luk, Staiger, Wong and Mathai (1999) from a sample of children with conduct disorder. The rate is much higher than that for children who have not been diagnosed with conduct disorder.

Ascione, Thompson and Black (1997) defined cruelty to animals as ‘socially unacceptable behaviour that intentionally causes unnecessary pain, suffering or distress and/or death of an animal’. However, defining and measuring childhood cruelty to animals is a complex matter. Difficulties include the impacts of cultural context, temporal context and the type of animal harmed, e.g. farm, wild, domestic, or stray (Ascione 1993). Values and practices regarding animals and their treatment vary quite substantially across cultures. The temporal context of animal cruelty includes when maltreatment occurs, the circumstances in which it occurs and the age of the child. For example, we assess the behaviour of a very young child, whose motor coordination is not yet fully developed and who has not yet learnt that their actions can hurt a domestic pet as different from that of a ten-year-old, who we expect to know the impact of their actions.

Information about age-related attitudes comes from a quantitative study of the relationship between animals and children (Soares 1985, cited in Mallon 1992). Three major age-related developmental stages in the way children relate to animals were found: 6-9 years saw a major increase in affective relationships to animals; 10-13 years was associated with a major expansion in cognitive understanding and knowledge of animals, and 13-16 years with a substantial increase in ethical concerns and ecological appreciation of animals.

Measuring childhood cruelty to animals

Assessing and measuring cruelty (or kindness) to animals presents a number of difficulties. Attempts to measure such behaviour on a single item question are inadequate because of the multi-dimensional nature of cruelty to animals (Ascione, Thompson and Black 1997). Ascione, Thompson and Black identified the following dimensions of cruelty:

- ✧ Severity (the degree of intentional pain and injury caused),
- ✧ Frequency
- ✧ Duration (the period of time over which it has occurred)
- ✧ Recency
- ✧ Diversity (across the four categories of animals – farm, wild, domestic, stray)
- ✧ Sentience (the level of sentience for the animals harmed)
- ✧ Covert (whether there are attempts to conceal the maltreatment)
- ✧ Isolate (whether the maltreatment is done alone or with others) and
- ✧ Empathy (the degree of remorse for what is done).

The researchers note other confounding factors. There may well be discrepancies between what children say they believe, what they do and their actual behaviour. If parent reports are used in assessing their children’s cruelty to animals, there may be differences between what parents observe and are therefore able to report, and differences between children’s and parents’ accounts and perceptions of cruelty.

In order to explore some of these difficulties, Ascione, Thompson and Black (1997) constructed and tested the Children and Animals (Cruelty to Animals) Assessment Instrument (CAAI). The Instrument is based on a semi-structured interview with parents and children aged over four years that aims to obtain information about animal maltreatment and its motivation. It assesses the witnessing and performing of cruelty and kindness to animals in the four categories of farm, wild, pet and stray animals. The researchers used a detailed set of instructions to code and

quantify responses to the semi-structured interview with parents and children, which allows a quantitative measure of cruelty to animals to be derived.

The CAAI is long and useful principally for research rather than for screening purposes, an aspect acknowledged by its developers (Ascione, Thompson and Black 1997). A group of Australian researchers have developed and tested for reliability and validity a shorter and easier-to-use questionnaire, the Children's Attitudes and Behaviours Towards Animals (CABTA), which they conclude would be suitable as a screening tool (Guymer, Mellor, Luk and Pearce 2001). The questionnaire relies on parents' reports of cruelty and in discussing its suitability, the authors raise the pertinent question of whether parents of the same child might make different assessments of their child's cruelty to animals.

A different type of 'screening tool' is the 'mental status exam' used by psychologists at Green Chimneys when children are admitted to the treatment facility (Ascione, Kaufmann and Brooks 2000). This is administered as the psychologist walks around the farm with the child, looking at the farm and talking about the possible activities the child might become involved in. The psychologist asks specific questions about the child's history with animals; whether and what type of pets they have had; whether they have observed anyone hurting an animal; and whether they think it is alright to hurt an animal. The psychologist also observes the child – their quality of touch when handling animals, their interactions and responses to different types of animals and whether they attempt to build a relationship with the animals. All of the information is collated and sent to the first case conference on the child.

This approach has the advantage of integrating information about previous experiences with animals, expressed attitudes towards animals and direct observation of how the child interacts with them. Nevertheless it can clearly only be an indication, albeit it a valuable indication in the hands of a trained and experienced person, of whether cruelty towards animals constitutes a problem in the child's behaviour. Cruelty may only become apparent in certain circumstances or under certain conditions, e.g. when the child or adolescent is angry or frustrated, or when adults are not around or with particular types of animals.

Explanations for childhood cruelty to animals

For therapeutic interventions to be successful, it is important to understand the different childhood experiences that may lead to animal cruelty. What little research there is so far indicates that the motivations for childhood animal cruelty vary and the underlying psychological processes are likely to be complex.

The parent and child interview that Ascione, Thompson and Black (1997) used to develop the CAAI explored motivation for children's cruelty to animals. Motivations reported by parents and children varied. They included curiosity and exploration (especially for younger children); peer reinforcement for cruel behaviour (including dares and situations where a specific behaviour is required for initiation into a group); as a means of changing one's current mood to a more exciting one; imitating, either consciously or unconsciously, the cruel behaviour children have witnessed others doing; and using cruelty to animals as a means of self-injury, e.g. goading a domestic animal until it turns on the child and hurts it. The authors also make the point that cruel and kind behaviour may co-exist in a child's repertoire.

There is still much to be understood about the connections between children being sexually abused and abusing animals, a link that is present in case study accounts; between children witnessing cruelty to animals and subsequently maltreating animals, perhaps in order to experience some form of control over something less powerful than themselves; and between neglect and rejection in childhood and taking out the associated anger on animals.

The case study reported in Ascione, Kaufmann and Brooks (2000) of 'Calvin', who was at the Green Chimneys long-term residential treatment centre for children in New York State between

the ages of 9 and 13 years, is a potent example of the deep-seated nature of child cruelty to animals. In Calvin's case, the cruelty was a result of extremely painful feelings of rejection and anger. It took many years for any substantial change to take place in his behaviour, years in which Calvin gradually become aware of how his behaviour was related to his feelings and how he could learn to control his cruelty by understanding these feelings. The case study also illustrates the rewards to be gained when a group of professionals and other trained personnel work together with animal 'co-therapists' over a long period of time to give children hope for the future. Not all change, however, takes so long. Section 2 includes some comments on the duration of animal-assisted interventions.

AAT and young people: assessing the evidence

Much of the early writing about animal assisted therapy, with children but also with adults, was descriptive, based on observation and individual case studies, without controls which would allow a detailed understanding of why and how animal assisted therapy 'works' (or doesn't work). This is necessarily the case in new fields of investigation. The case studies and descriptions have been valuable in generating hypotheses for further testing. As a result, there is a growing body of research aimed at testing particular hypotheses in controlled experiments to verify the effectiveness of interventions.

However, it is still common in the literature to find comments about the limited number of empirically based research articles, and there are many areas in which more research is needed. In 1992, Mallon reviewed literature on the utilisation of animals as therapeutic adjuncts with children and youth. He concluded that 'although pets are not a panacea for the world's ills, various applications of animal-facilitated therapy are worth noting and may provide a partial solution to the problem of alleviating stress and feelings of deprivation in children and others' (Mallon 1992, p. 62). He reiterated calls by other commentators for more sophisticated research designs and evaluation procedures, for research that looked at longer term effects of the use of animals as therapeutic adjuncts and the need to examine the costs and risks of animal assisted interventions.

Eight years later, the Foreword to Fine's *Handbook on Animal Assisted Therapy: Theoretical Foundations and Guidelines for Practice* (Fine 2000) included the comment that: 'in terms of therapeutic benefits of animals, there is still relatively little strong evidence of a positive effect outside of the use of animals as icebreakers in psychotherapy ... and the use of animal helpers for persons with physical disabilities. There are many anecdotes describing how an institutionalized individual responded positively to a therapy animal, but studies involving groups of patients have usually given disappointing results' (Rowan and Thayer 2000, p. xxxv).

This is a conservative view of the research findings. Fawcett and Gullone (2001a) take a more positive view. They acknowledge that much of the reported success of animal assisted interventions is based on descriptive rather than sound, empirically based research, and that much more research is needed to fully understand the implications of the positive components of animal assisted therapy and animal assisted activities with children. However, they believe that there is indirect empirical support for animal assisted interventions, i.e. the arguments put forward for its benefits are consistent with findings from 'comparatively more empirically sophisticated research into the quality, and human benefits, of human-animal interactions' (p. 128).

They suggest that, given what we know about children's positive attitudes towards animals (especially research which shows that children generally regard their pets as non-threatening, uncritical and having unconditional regard for them), both logically and intuitively it would seem that animal assisted therapy is likely to be successful with two particular groups of children and young people. They are children who have few inhibitions and poor social control (such as those

diagnosed as having Conduct Disorder or Attention Deficit Hyperactivity Disorder) and those who are very shy and withdraw. Research which shows that companion animals are an important source of unconditional 'social support' for children, and that their presence in a family has been shown to increase the amount of time which family members spend together, also supports the potentially important role animal assisted therapy could play with such children.

Future research, both about the utilisation of animals in therapeutic settings and the quality and health benefits of human-animal interactions may show more clearly how AAT can lead to positive outcomes for other types of human development problems. However, problems of experimentally exploring animal assisted therapy and verifying its outcomes are likely to persist for some time. Human-animal interaction is complex and multi-faceted; its roots are deeply embedded in our evolutionary past and as yet only partially understood. Our relationships with and attitudes towards different types of animals (and indeed with the natural environment as a whole) are sometimes contradictory and beset with ethical dilemmas. It is frequently difficult to devise empirically-based ways of testing hypotheses which do justice to the complexity and which are able to control for the range of personal, social and environmental factors (including factors directly related to the animals utilised in AAT) that may be operating in any given set of circumstances. Rigorous evaluation of programs using AAT poses similar problems.

In some other areas of social and human behaviour, it is accepted that we need to recognise the validity of both different types of evidence for different purposes and well-documented and researched supporting evidence. In the case of animal assisted therapeutic interventions, the different types of evidence that need to be recognised may include relatively large scale statistical studies where they are possible, smaller scale empirical studies, well-documented case studies, and single-subject designs. Burch (2000) discusses how single-subject designs, which aim to demonstrate a functional relationship between an event and some specific behaviour in an individual, may be employed. The supporting evidence may come from further research into the nature and quality of human-animal interactions.

Katcher (2000) notes that we place constraints on AAT by conceptualising it as 'therapy' and that the 'use of the medical model inherent in the idea of AAT for describing the effects of interactions between people and animals obscures more than it illuminates'. Further, therapy 'is an impoverished way of examining the powerful effects of human-animal interaction because it ignores the sustaining effect of human-animal interaction and the dependence of the beneficial effects of contact with animals on the animal's continuing presence' (p. 471). Section 2 of the review explores how farm-based animal intervention programs are able to meet some of Katcher's concerns by providing children and young people with experiences of animals and plants in an integrated environment and in a relatively continuous way.

In summary, calls for further research are legitimate and there are many areas that need further exploration; however research about the nature and quality of animal-human interactions, a small but growing body of empirically-based research, some well-documented individual case studies, and a number of soundly documented and evaluated programs, are sufficiently positive to conclude that there is benefit in animal assisted therapy if it is implemented with an understanding of its potential benefits and possible limitations. Katcher and Beck's (1987) comment that utilising animals as therapeutic adjuncts is not a substitute for human relationships but a complement to them, is a good guideline. The clear implication is that any program designed to facilitate changes in the lives of disadvantaged children and young people requires skilled and understanding personnel who are prepared to be flexible and to use the resources they have available, including the animal and plant resources, in ways that are appropriate to each individual.

2. Effective AAT programs

This section of the review first briefly describes two farm-based programs in the USA and several other overseas AAT programs for disadvantaged and troubled children and adolescents. It then identifies elements from these programs and from the broader AAT literature that have been shown to contribute to the effectiveness of programs.

A comprehensive search of animal assisted therapy programs for children and young people in Australia was not part of the brief for the literature review. However, a brief internet search and a number of telephone inquiries did not find a service which provides animal assisted therapeutic interventions as defined in the literature. The search identified a range of related programs, including programs that include animal assisted activities; farm-based and wilderness experiences for troubled and disadvantaged young people; and garden growing and farm-based programs that offer education and training for disadvantaged young people and those exiting juvenile justice centres. However, none of the programs contacted focused specifically on the human-animal bond as an integral and conscious therapeutic intervention. Brief descriptions of several related programs in Australia are included in Appendix 1.

Selected programs

Forget Me Not Farm

The Forget Me Not Farm is designed to provide at-risk children and young people who have experienced violence opportunities to participate in and become part of 'a series of relationships in which compassion and empathy are learned through human interaction combined with the nurturing experience of working with plants and animals'. It aims to break the cycle of abuse that persists in some families.

The Farm serves children and youth aged 3-18 years, identified by the Sonoma County, California, child welfare system as victims of abuse and neglect. Eighty percent of the children attending the Farm have been removed from their homes and are currently in a residential care or treatment facility. Participants are referred to the Farm from various agencies including emergency shelters, a YWCA shelter for women escaping domestic violence and a protective day care program for children who have been abused. Special needs children (such as sight impaired and deaf children) also attend the Farm, where touch and interaction are encouraged. Weekly sessions can last for as short as nine weeks or as long as a year or more depending on children's needs. At least one young person came to the Farm for many years. In 2002, more than 300 children participated in programs at the Forget Me Not Farm.

Gardening and the care of plants are integral to children's experience at the Farm. Children are introduced to concepts of growth and renewal through working in gardens, in conjunction with volunteer Master Gardeners. It has been found that children who, for various reasons are not ready or able to work with animals, often respond to gardening and the care of plants.

Specially screened and trained volunteers are essential to the program. They must be at least 18 years old and agree to a minimum of one year's commitment and attend at least one weekday session per week. Each volunteer is meticulously screened, interviewed, fingerprinted and educated about the special needs and concerns of abused and neglected children. Volunteers are asked to attend a monthly training and support meeting facilitated by a licensed therapist.

Green Chimneys Children's Services

Green Chimneys is a large organisation, dealing with the care of children with often severe emotional and behavioural needs, including children with histories of severe neglect, homelessness, sexual, physical and emotional abuse, poverty, learning disabilities, aggressive behaviours and chronic depression. In 2000, the Service had the capacity to cater for 102 residential children and adolescents and 30 day students who interact in a rural environment with barnyard animals, domestic companion animals, and wildlife that is provided with a temporary home for various reasons and released into the wild when rehabilitated.

Green Chimneys was founded in 1947 as a private farm in Putnam County, New York where children could interact with farm animals. It now specialises in the care of children with special needs and since 1974 has been a social service agency. The agency serves children and adults with handicapping conditions as well as 'regular' children and adults, believing that the intermingling of various populations in an atmosphere which is stimulating and as normal as possible, enhances the quality of life for all.

The Green Chimneys' Mission is to provide 'care and concern for all living things'. Its services aim to restore and strengthen 'the emotional health and well-being of children and families and (to foster) optimal functioning and independence'. They aim to achieve this by developing a harmonious relationship between people, animals, plants, nature and the environment through an array of educational, recreational, vocational and mental health services. Green Chimneys is based on a strong philosophy of concern for the environment, the essential interaction of all living creatures, and interdependent relationships between humans, and between human and non-human animals (www.greenchimneys.org/interactions/interactions.htm).

The Service has developed a set of principles and guidelines covering all aspects of its operations, the whole overseen by the Continuous Quality Improvement Council of Green Chimneys which meets weekly and is made up of senior officers in the organisation. The principles and guidelines, developed over time and based on considerable experience and experimentation, are outlined under nine headings relating to program design (Mallon, Ross and Ross 2000, pp. 118-126). The guidelines and principles are reproduced in full in Appendix 2, together with questions suggested by the Continuous Quality Improvement Council as important organisational considerations for services wishing to set up an animal-assisted program.

Toronto Young Offender Program: Youth and animal pilot project

A description of the Youth and Animal Pilot Project (YAPP) is included because of its client group, innovative utilisation of animals and partnership structure.

YAPP is a collaborative program between Central Toronto Youth Services and the Ontario Society for the Protection of Companion Animals (OSPCA). It matches young offenders with hard-to adopt dogs in animal shelters. The program aims to have positive outcomes for both the dogs and the young people involved. Goals for the shelter dogs are to increase their 'adoptability' and to decrease adoption breakdown that occurs when untrained or anxious animals have difficulty in adjusting to their new homes. For the young offenders, the goals are to increase their ability to understand and manage feelings of anger, respond productively to conflict situations, increase their level of tolerance and empathy for others, as well as to recognise their inherent self worth (www.ospca.on.ca/ac_vp_wwad_yapp.html).

The young people participate in a 13-week program during which they learn about animal training and work with an individual dog. The program has been running for several years. Findings from an evaluation of YAPP (Mathews 2002) are particularly encouraging. Key conclusions are summarised below and the concluding chapter of the evaluation report is included in Appendix 3 for its discussion and assessment of program outcomes.

YAPP graduates showed improvements including:

- ✧ increased ability to regulate affect and control anger
- ✧ reduced levels of violence or antisocial behaviour
- ✧ reduced recidivism or reduction in the amount or seriousness of offending
- ✧ improved coping and problem-solving skills
- ✧ improved cognitive functioning
- ✧ reduced minimisation and cognitive distortions
- ✧ improved social skills
- ✧ improved relationships with family, friends and peers
- ✧ development of empathy.

The evaluation concluded that the program demonstrated how ‘the formation of bonds of intimacy to others and to community can reduce feelings of isolation and improve troubled young peoples’ sense of self worth and personal efficacy’. The ‘real life’ nature of the program, which places young people in demanding life situations with real responsibilities, helped to facilitate youth development and positive outcomes. Of particular interest are conclusions from the evaluation that the YAPP service model increases factors associated with resilience for young people, has a great potential to promote community safety and prevent and reduce bullying, crime, animal cruelty and interpersonal violence and aggression. Further, it is ‘a working model of how to combine diverse community partners to build social capital in the service of reducing vulnerability and risk factors in young people in trouble with the law and of raising healthier, more responsible children and youth’ (Mathews 2002, p. 64).

Two programs similar to YAPP are

- (1) Project Pooch, in which specially selected juvenile offenders in an institution in Oregon are paired with dogs from the Oregon Human Society in a ‘program combining obedience training and pet therapy to prepare dogs for adoption and to build patience, responsibility, self-esteem and relationships skills in the youths’.
- (2) The Shiloh Project, in which ‘adolescents, primarily boys referred to a residential treatment center or alternative school, are divided into pairs and assigned an adoptable dog to train during each four-week Shiloh Project Session (<http://humanelink.vview.org/into/therapy/html>).

City Girls/Inteventions

City Girls/Interventions is a home for teenage women ages thirteen to nineteen who are recovering from substance abuse. They have established a program with Chenny Troupe Inc. Chenny Troupe was established in 1991 as a way to motivate a wide range of special needs populations, from emotionally disturbed teenagers to survivors of gang-related crimes, through animal-assisted therapy. More than 100 volunteers and 70 certified therapy dogs participate in several regularly scheduled programs in the Chicago area.

At City Girls/Interventions, most sessions are sixty to ninety minutes long. Volunteers and their dogs meet with participants once a week for six to eight weeks. The focus of the program is ‘quality time’ spent with animals. One volunteer and a dog are typically present for every two participants. It is not unusual for participants to be frightened of the dogs when the sessions begin. A visiting dog may hold a down-stay position for quite some time while participants get used to his presence.

Once trust is established, participants are guided through activities that they can enjoy with the dogs. Chenny Troupe dogs provide a non-threatening way for participants to begin forming loving, stable relationships. The girls' interactions with the dogs often develop into a discussion of relevant psychological issues such as trust and responsibility.

Counselors at City Girls/Interventions report that girls in the home work very hard in therapy so they can participate in the weekly Chenny Troupe program. Volunteers also notice changes in the girls' behavior from week to week as they begin to interact more positively with the dogs and other people. They often take a great deal of pride in grooming them or giving commands as they are readily obeyed.

What makes programs effective?

The following factors have been identified as helping to make AAT programs for disadvantaged children and young people, especially farm-based programs, effective. Planning issues such as cost effectiveness and liability, which do not directly impact on the therapeutic intervention and its outcomes have not been included.

Staff issues

- ✧ Programs are most effective when there is careful selection of staff and ongoing monitoring of the roles and responsibilities of staff with different skills and expertise. In farm-based program especially, the range of possible staff is wide. Staff working with children and adolescents may be licensed (registered) and credentialed personnel (social workers, nurses, psychologists, physicians, occupational therapists, vocational therapists, teachers) and other staff (child care workers, school personnel, recreation workers, nurses aides, therapy aides). Volunteers may provide animal assisted activities (AAAs). Other staff may have responsibilities for the care of animals. Which responsibilities should be filled by professionals, which by trained personnel and which are suited for volunteers is likely to be an issue for all programs, irrespective of size.
- ✧ Staff may come forward to work with both children and animals. One of the farm-based services described above reports that this has generally worked well. They suggest that staff who come from the helping professionals and want to also work with animals need to be flexible but there is also a need for structure, consistency and limits.
- ✧ Staff need to be committed to the welfare of animals in general and to the animals they work with specifically.
- ✧ Many different philosophies are represented by those who are interested in developing approaches to working with animals and humans and in the selection of staff, it is important to understand people's specific beliefs about the work and personal stance on work-related issues that may arise, for example, attitudes towards the slaughter of animals for food.
- ✧ The literature suggests that in programs where there is a mixture of staff with different expertise, with or without volunteers, it is most effective to have all involved working as a team and acknowledging the different areas of expertise of all.
- ✧ Programs are likely to be more effective if there is provision for staff supervision and for ongoing training. This is likely to be especially important for any program developed by Menzies as it will break new ground in Australia.

Client issues

- ✧ Not all children and young people like animals. Some may have specific allergies or phobias. For children's safety, this needs to be determined prior to a farm visit or before beginning to work with children on a longer term basis.

- ✧ For effective ongoing work with a child or adolescent, information about their prior experiences with animals is essential. An initial assessment needs to be made and the information integrated into a plan of working with them.
- ✧ Children and adolescents' experiences with animals, especially with family pets, need to be explored and understood.
- ✧ All staff need to be aware that young people who have been sexually abused and/ or witnessed domestic violence may also have seen their pets or other animals abused; they may have been threatened that their pets will be hurt; their pets may have 'disappeared' or been removed from them; they may have had to leave a pet when escaping from a violent home. Any of these experiences are likely to have some impact on how they respond to animals in a farm environment.
- ✧ Effective interventions require effective assessment of young people. It cannot be expected that the same approach will work, for example, with all children who are violent or abusive towards animals, as violence towards animals has different psychological causes and motivations.
- ✧ A format for tracking animal cruelty and guidelines for dealing with it, known to all staff, is important for the welfare of animals and for appropriate and timely interventions with children and adolescents. As an example, the format developed at Green Chimneys is included in Appendix 2.
- ✧ Staff working with animals need to have an understanding of the principles and nature of 'clicker training' based on operant conditioning, which is replacing other forms of animal training and is reputed to be effective with most animals and birds.
- ✧ With skilled and committed staff working with both animals and children, a carefully planned program and sufficient time to work with clients, substantial changes are possible in the lives of some children and young people.

Animal selection and care

- ✧ It is wise to start small.
- ✧ Programs in urban areas are generally best to stick with smaller companion animals, although visiting animal-assisted activity components can be incorporated into programs.
- ✧ The selection of animals is crucial. All animals need to be carefully screened and subject to behavioural assessment to determine their aptitude for working with people and especially with children.
- ✧ Practical considerations such as zoning and health regulations need to be checked.
- ✧ The space and facilities required for each animal are important.
- ✧ The health and well-being of animals is of paramount importance and policies should be in place to ensure that all animals are healthy, have up-to-date vaccinations and a record kept of their health status.
- ✧ Animals' 'working conditions', including the number of hours they work and interact with children and adolescents need to be monitored; animals can become stressed and need adequate time to rest. They should not be expected or required to fulfil potentially conflicting roles (e.g. guard dog and totally accepting companion to all) without specific training.
- ✧ Cleanliness, infection control and ensuring there is no risk of illnesses being passed from animals to humans is crucial. Every setting where pets or animals of any type are located should have some rules in place.

Volunteers

Volunteers are a key element of many AAT programs. They are most effective when they are:

- ✧ well trained
- ✧ used in appropriate ways and have clear guidelines for their work and areas of responsibility
- ✧ regarded as a part of a team and respected for their expertise
- ✧ effective at modelling appropriate behaviour with animals and plants
- ✧ able to let children take initiative while keeping an eye on their treatment of animals
- ✧ understand the needs of the animals they are working with.

Consistency of staff, including volunteers and their animals, is particularly important for working with vulnerable children and adolescents. A program will be most effective if volunteer commitment is maximised and volunteer turnover is reduced. This requires attention to all of the above factors and being aware of any volunteer concerns. Forget Me Not Farm requires volunteers to commit to at least one year of involvement and attendance at at least one weekday session per week.

Children and adolescents without strong family supports need people to call on for advice, support and companionship. Mentors have proved to be important means of providing such support for some young people. The role of volunteers as potential mentors for children and young people during and after they have been involved in an animal assisted intervention needs to be explored.

Structure and approach

The literature identified different program structures and approaches (Granger and Kogan 2000). They are listed in Section 1. The advantages and benefits associated with different structures merit consideration by Menzies in developing an AAT program.

- ✧ University-affiliated programs. Universities with an interest and expertise in AAT have the potential to offer access to resources from different fields of study such as psychology, social work, animal welfare, and veterinary studies, as well as advice and resources for planning and evaluation.
- ✧ Nonprofit organisations. Potential benefits of cooperation with non-profit organisations include access to funding sources, volunteers, team-building experience and an organisational structure.
- ✧ Individual volunteer and independent practitioner. Such programs depend on the interest and expertise of the professional practitioner. It may be possible to incorporate arrangements with independent professionals into a Menzies program, with or without a volunteer and their animal. They could be involved as visiting practitioners, mentors, supervisors of agency staff, or sources of advice.
- ✧ Human-animal intervention team. A team approach was found to be effective in a school setting where owners and companion animals, staff from a multidisciplinary university-based team and special teachers in schools worked together (Granger et al. 1998). Such alliances have additional advantages of building strong links between organisations and with a wider community.
- ✧ Professional with a companion animal. This is used most frequently in a private practice, as an adjunct to therapy where the therapist considers it may be beneficial for a client. There may be possibilities of cooperative arrangements with private practitioners.
- ✧ Volunteer with a companion animal, including professionals or lay people who want to be involved in an AAT program. There is considerable potential for the use of volunteers in farm-based programs, and for exploring how volunteers may be used as mentors and for post-program follow-up.

Partnerships and strategic alliances

The Menzies program is likely to begin with limited staff resources, so it makes practical sense to explore creative ways of working with other agencies, organisations and groups. There are other potential benefits too.

- ✧ A farm-based AAT service offers many possibilities for integration and liaison with other program areas including therapeutic, environmental, agricultural, educational and community programs. Other groups and services may be important as partners and/or sources of advice, resources, mentors, volunteers and expertise. Promoting links and collaboration across sectors has the potential to produce better solutions for young people.
- ✧ The value of integrating and linking services is well-recognised and has positive benefits for children and adolescents if well managed. The literature suggests that animal assisted therapy, while potentially valuable for many children, needs to be part of a comprehensive approach and linked to other services.
- ✧ Integration of AAT with other areas, including volunteer organisations is an important part of strengthening the capacity of communities to support children and young people.

The literature suggests, however, that to be successful, partnerships and working relationships with other groups and organisations in relation to AAT require adequate preparation and exploration of different perspectives beforehand, strong administrative support from other organisations, and adequate understanding of the theory of animal-assisted therapy and of potential problems (Heimlich 2001).

The program

Some elements of effective programs of animal-assisted therapy with disadvantaged and vulnerable children and adolescents are elements that contribute to the effectiveness of any program. They include such factors as consistency of staff, respect for young people, good assessment procedures and the setting of clear boundaries and goals for young people.

Elements specific to animal-assisted therapeutic interventions include utilising interactions with animals to

- ✧ promote feelings of self-worth
- ✧ promote responsibility and independence
- ✧ encourage and understand care and nurturing of other living things
- ✧ assist the exploration of feelings, fears and anxieties
- ✧ master developmental tasks
- ✧ teach children and adolescents about birth, life and death
- ✧ promote companionship, love and warmth
- ✧ promote understanding of parenting, including the necessary sacrifices and the stresses involved
- ✧ promote understanding about the interdependence of human beings and the environment.

There is little guidance in the literature about the optimum duration of a program that involves children visiting a farm, except to say that longer rather than shorter is probably more effective. However, duration is likely to depend on many factors including the goals and nature of the program, the resources available and the client group. Some short-term visiting programs may be

effective. The key is likely to be awareness of individual needs and effective follow-up if and when it is needed. The Youth and Animal Pilot Project (YAPP) reported above achieved positive and measurable outcomes in a 13-week program with young offenders, although participants were considered as only at moderate risk of re-offending and had opted into the program voluntarily.

Outcomes

As with all other interventions, assessing whether a program is effective as far as its outcomes are concerned is easier when the goals are clear and are able to be specified. The literature review identified a range of goals for animal assisted therapy programs relevant to children and young people. They include

- ✧ enhanced capacity to form positive relationships with others
- ✧ increased feelings of self-worth
- ✧ increased personal competence and mastery
- ✧ increased empathy (for children and young people who are assessed as lacking empathy)
- ✧ a reduction in anxiety
- ✧ reduced depression
- ✧ reduced anti-social behaviour

The therapeutic relationship in AAT

The following factors have been identified by a psychologist at the Green Chimneys farm as elements of an effective therapeutic relationship utilising animals.

- ✧ AAT is a triangular relationship (between client, therapist and animal); one that is dynamic and flowing.
- ✧ There must be respect for the animal as an animal; human emotions are not assigned or projected onto the animal. AAT does not ‘use’ animals but works in conjunction with the animal’s basic temperament and capacities.
- ✧ AAT is cognizant of stress in the triangle, either from or towards the animal or humans.
- ✧ The therapist involved in AAT must be knowledgeable of the history of each in the triangle.
- ✧ Therapists utilising AAT must be aware of and create a sense of balance in the dynamic and flowing triangular relationship.
- ✧ Therapists utilising animals need to be aware of and concerned about safety issues at all times in the relationship with the person and for the animal.
- ✧ The therapist establishes the boundaries which connect humans and animals as part of the AAT. The therapist looks to the strengths and weaknesses of the animal as well as their own personal issues as the coordinator of the triangle ... the therapist must know what one brings to the triangle at any given moment and how that energy impacts the dynamic flow of the triangle (www.greenchimneys.org/interactions/interactions.htm).

Evaluation

Evaluation of AAT programs is a topic which warrants considerably more attention than is possible in this review. In brief however, the literature reinforces the need for ongoing evaluation of programs. It also highlights some inherent difficulties, especially in determining and measuring

the outcomes of AAT. In many respects, this is hardly surprising, given the complexities of the human-animal bond and the multi-dimensional nature of human behaviour and experience.

Burch (2000) identified ten areas that can be addressed in evaluation of AAT programs. They include most of the headings under which effective program elements have been discussed. They are:

- ✧ the program Mission Statement, which should be practical, attainable and related to the goals and short-term objectives that have been identified for the program
- ✧ the physical plant or building(s) where the program is sited, including the facilities for animals
- ✧ the clients, including how clients are selected and initially assessed
- ✧ the animals, including their selection, which Burch says can make or break a program; their suitability for the client population, their health, behaviour, and access to veterinary services, etc.
- ✧ volunteers, including their training and preparation for the program;
- ✧ all staff, their roles and responsibilities and the ways in which staff work together;
- ✧ curriculum or program content, i.e. what is 'done';
- ✧ cost benefit analysis
- ✧ results – client progress and the 'size' of any changes
- ✧ the long term impact of the program on clients.

There are many aspects involved in assessing client progress and long-term outcomes. They include deciding what constitutes a change and how short and long-term changes can be measured.

Conclusion

It cannot be expected that AAT will be equally appropriate for all children and adolescents; no 'program' or approach has yet proved to be so. However, the research suggests that the human-animal bond has qualities that make it a particularly strong and effective resource in working with children and adolescents who have grown up in an environment where they are neglected, abused or rejected by adults who have the responsibility to care for them.

Animal assisted therapeutic intervention in a specifically designed and staffed farm environment has some additional and particular advantages. The interventions and young people's experiences take place in a 'total environment', that is, one which includes a variety of animals, landscapes, plants and activities, together with all of the possible interactions offered by such an environment. Farm-based programs therefore avoid, and indeed have the potential to overcome several of the constraints that Katcher (2000) suggests result from conceiving animal assisted interventions as 'therapy'.

Elements of an effective program include careful selection of staff; understanding of the nature and quality of human-animal bonds; awareness of the variety of children's attitudes and behaviour towards animals; understanding of the relationship between and the effects of different forms of violence in families, careful selection of animals for the program and ongoing attention to their needs and their health. Programs are most likely to be effective where goals are appropriate and clearly articulated and outcomes are evaluated. Farm-based programs have the potential to establish strong links with other sectors, to promote integration of services and contribute to community capacity building.

While it can never be a panacea for all troubled children and adolescents, animal assisted therapeutic intervention in a specially designed farm environment provides a supportive context for interaction with animals, opportunities for children and adolescents to experience the healing qualities of the human-animal bond, and opportunities to learn from the documented potential of animals to provide a calming, unqualified acceptance and love.

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* Australian research and/or author

Appendix 1

A. Contacts in Victoria

The following organisations and groups in Victoria may be useful sources of information and provide opportunities for liaison, collaboration and partnerships.

The Guide Dog Association of Victoria

The Guide Dog Association of Victoria has a Pets As Therapy project which provides visually impaired children with a dog as a pet. The dogs have had some initial training but have been assessed as not suitable for further training as a fully qualified Guide Dog. The dogs provide stimulation and opportunities for social interaction.

Psychologists for the Promotion of Animal Welfare

Psychologists for the Promotion of Animal Welfare is an Interest Group of the Australian Psychological Society. Some have an interest in human-animal relationships.

Delta Society Australia

Delta Society Australia was incorporated in 1997 as a registered charity. It is not affiliated with the USA organisation but is part of a world-wide organisation. The Society has a Pet Partners program through which approximately 300 accredited dogs and owners across Australia visit aged care facilities, agencies for children with special needs and children's hospitals. They also run an accredited Certificate IV course in dog training. Details of the Society's activities are at www.deltasocietyaustralia.com.au

Animal Welfare Centre

The Animal Welfare Centre is a collaborative undertaking between the University of Melbourne, Monash University and the Department of Primary Industries. Through research and other activities, the Centre aims for improvement in the welfare of farm, laboratory and companion animals, the generation of agricultural wealth through sustainable animal welfare practices in agriculture and improvement in the quality of life of people through better understanding of the human-companion animal relationship. The Centre promotes postgraduate research related to these areas, and has several students undertaking research in the area of companion animals and human-animal bonds. Details of the Centre and its research are at www.animal-welfare.org.au

Farm for troubled youth in the Acheron Valley

The farm is the inspiration of Bronwyn Rayner, who has been running it for some 27 years. Young people are referred to the farm from several agencies in Melbourne. WOOFERS (Willing Workers on Organic Farms) are integral to the functioning of the farm. They are backpackers who travel around the work and who work on organic farms for free. They take on the role of big brothers and sisters for young people. The volunteers and the young people are regarded as 'colleagues' in the running of the farm, which incorporates environmentally sustainable approaches.

B. Related programs in Australia

Youth Off the Streets

Youth Off the Streets is a non-profit, non-denominational agency for disadvantaged youth, founded in King's Cross in 1991, but now operating a range of services for young people. Youth

Off the Streets has three farms in rural New South Wales. The farms provide seven-day-a week programs, including residential, educational and employment services. One of the farms caters specifically to early adolescent offenders who have specific behaviour problems. While some young people take care of the horses and ride them, and there are instances of young people becoming very attached to animals, care of and relationships with animals is not the prime focus of programs run there. The farms are part of a range of integrated services for 13-18 year-olds, the aims of which are to help young people develop life and work skills, develop self-esteem, and move towards more independent living.

Youth Enterprise Trust

A brief outline of the Youth Enterprise Trust is included here as representative of a number of farm-based and wilderness programs in Australia. While they do not generally involve the conscious utilisation of animals in a therapeutic setting, they do include a strong element of establishing positive relationships with the natural environment and through this, aim to promote both self-reliance and interdependence with others. The Youth Enterprise Trust assists disadvantaged young people between the ages of 16 and 24 years through a personally challenging program that includes a structured, sequential remote wilderness experience, practical education and training on a farm in a semi-rural area of South East Queensland and personal and practical support from a mentor for up to 12 months after young people complete the program.

Aspects of the YET important to its success and relevant to the Menzies proposal include:

- ✧ there is a conscious effort to include a mix of participants from a diversity of socio-economic and ethnic backgrounds
- ✧ other people, such as the families of participants, financial donors and their families, staff and local community members are encouraged to become part of the program, as Off-Siders (mentors) or in other ways in the spirit of service to the community.

Youth Grow Gardens

Youth Grow Gardens is a Melbourne-based program run by Jesuit Social Services. It has been running for about 15 years but in 2001 secured funding through the Community Jobs Program (CJP) so that participants, aged 18-24, can now be paid while they gain gardening and horticultural skills for subsequent employment. Many participants are either exiting prisoners or have both drug use and mental health issues. The Youth Grow Gardens project is integrated with other Jesuit Social Services programs. While the programmatic aim is for young people to gain skills for employment and further education, any personal gains by participants are acknowledged. The program coordinator noted the positive and relaxing effect for many young people of working with their hands, getting into the soil and seeing plants grow.

Appendix 2

Extracts from **Green Chimneys Children's Services: Issues for consideration in program development and implementation** (from Mallon G, Ross, S and Ross L (2000) Designing and implementing animal-assisted therapy programs in health and mental health organizations, in A Fine (Ed.) *Handbook on Animal Assisted Therapy: Theoretical Foundations and Guidelines for Practice*. San Diego: Academic Press.

ORGANIZATIONAL ISSUES

Green Chimneys notes that the success of any innovation depends on the 'interplay of power and politics at numerous levels' and the Continuous Quality Improvement Council suggests that any organisation wishing to implement an animal-assisted program needs to address the following considerations as a starting point:

- ✧ Is there administrative support for the idea?
- ✧ Does the idea have board support and will need board support?
- ✧ Does the innovation have staff who will support the idea?
- ✧ Will new staff have to be trained and hired?
- ✧ Has anyone asked the clients if they think this is a good idea?
- ✧ How will the innovation be funded, and what costs will be incurred throughout the process?
- ✧ What are the salient issues with respect to infection control?
- ✧ What are the issues with respect to safety and humane treatment of animals?
- ✧ What liability issues need to be considered?
- ✧ Are there measurable outcomes that will enable the organization to document and evaluated the program's effectiveness?
- ✧ How can this intervention be monitored for continued quality improvements?

PROGRAM DESIGN ISSUES

STAFF ISSUES

Knowledgeable, experienced and enthusiastic personnel greatly influence a program and ensure programmatic longevity. A consistent core staff make management easier. After a great deal of experimentation and trial and error logic, Green Chimneys has found that an animal assisted program can be staffed by licensed and credentialed personnel (social workers, Nurses, psychologists, physicians, occupational therapists, physical therapists, vocational therapists, teachers) and other staff (child care workers, school personnel, recreation workers, nurses aides, therapy aides); and volunteers can provide animal assisted activities (AAAs). It has been an ongoing challenge for our organisation to determine which staff positions or responsibilities should be filled by professionals, which should be staffed by trained personnel and which are suited for volunteers. Over the years, we found that many of the staff currently employed by the agency came forward to fill roles in working with both children and animals. Two key factors were their desire to incorporate animals into their work with people and the commitment to designing innovative approaches to working with people in need. An additional essential element was whether nor not they had the support of their supervisors in this endeavour.

Green Chimneys has historically recognized that those helping professionals who work with both people and animals need to be flexible, but there is also a need for structure, consistency and limits. Many different philosophies are represented by those who are interested in developing approaches to working with animals and humans. Before any new program can be developed, it will need to be approved by the organizations' board of directors and administration staff. The first that most organizations' boards of directors and administrators will want an answer to this is: How does this project relate to the organization's mission, visions, values, goals and needs? On a secondary level, both bodies will want to know about costs, about maintaining the program, about agency personnel and client support, and about liability. When interviewing for positions, administrative staff must seek out the candidates' specific beliefs and personal stance. For example, will a vegetarian be able to talk to clients about the slaughtering of animals for meat? Is the person unsure about how the animal will be treated? Know where the candidate stands on issues that may come up in the work[place. Staff surveys may be another important step that can permit their voices to be heard when considering a new intervention.

CLIENT ISSUES

Although it has been written that the human-animal bond is universal (Mallon 1992, Senter 1993, p. 1), the reality is that not all people like animals. Some clients may be allergic to specific animals, some may have a phobia about a particular animal, others may just not have had positive experiences with animals. At Green Chimneys many of these issues are immediately addressed at intake, when the client first arrives for services. Clients are screened for allergies and asked about fears or dislikes about particular animals. This information is then integrated into the client's initial prospective treatment plan. Although Green Chimneys would like all of its clients to have a positive experience with animals, the organization respects the fact that not all children respond the same way to animal-assisted approaches to treatment.

Another means for assessing patient satisfaction or dissatisfaction is to conduct a survey of the clients' likes and dislikes about their treatment. A client-focused survey soliciting patient response towards animals is an important place to begin the process.

ANIMAL SELECTION

Choosing animals at Green Chimneys to be part of our AAT program is an exciting endeavour, but animal selection can also be an imposing task. Again, we would caution that those wishing to introduce animals into an existing organization should start small. Zoning and health regulations will undoubtedly affect the location, nature and size of the programs incorporating animals. Geography also plays a large role in the selection of animals. Organizations in urban environments obviously need to consider restricting the program to smaller companion animals (see Senter, 1993, Chapters 4 and 5). Some programs may choose to have a visiting AAA program, rather than having animals in residence. Rural programs, such as our Green Chimneys' program, utilize a wide variety of animals including farm animals and captive wildlife. Our wildlife program is coordinated by an individual who is a licensed wildlife rehabilitator (see Senter 1993, Chapters 2 and 3). Most of our wild animals have sustained injuries and are only temporarily placed at the farm for rest, medical care and eventual release. The size of the physical space needed for each animal is determined by the animal's physical size and need for space. An administrative policy should also be in place that ensures that all animals are healthy, have up-to-date vaccinations, and a record kept on file of their health status.

Concern for the physical well-being of the clients is a major priority in health and mental health care-related organizations. Cleanliness, infection control, and risk of illness related to zoonotic conditions claim a central focus in most health and mental health care systems. Organizations interested in adopting an AAT approach must research federal, state and local regulations early in the planning process to consider possible limitations for such an intervention. It can be very

disappointing for those interested in designing an AAT program to discover that rigid local health laws prohibit such techniques.

OUTCOMES

The widespread ardour about the almost universal efficacy of animal-assisted programs has for many years all but obscured any serious questioning of its possible risks. In the age of managed care, health and mental health organization administrators must evaluate the effectiveness of their interventions. Any program evaluation of a health or mental health organization must also include a review of the effectiveness of an organization's animal-assisted programs (Anspach, 1991). Although organization administrators must develop stringent criteria used for what constitutes a therapeutic gain, they must also develop criteria for what constitutes an effective programmatic intervention. Some suggested questions that should be assessed include these: Is this intervention cost effective? Are there other interventions that are equally clinically appropriate and useful, but more cost effective? How many clients are utilizing this service in a given cycle? What are the instruments used by program evaluators to determine clinical or program effectiveness with respect to the intervention? Therefore, guidelines for the implementation of an animal-assisted program need to identify conditions necessary to preserve the health and safety of both the animals and the clients, and to ensure that the intervention is programmatically effective. Administrators should resist the attempt to rationalize the implementation of such programs solely as a kind of therapy that has universal benefits solely because of its appeal.

INFECTION CONTROL ISSUES

Even in the best AAT programs, there is an element of risk. At Green Chimneys, we have been aware of and respond to these risk factors on a daily basis. Animals bite, some produce allergic reactions, and some pass on zoonotic diseases. Therefore, an AAT program must develop infection control policies that address the need for some animals to avoid contact with certain people, and to develop surveillance procedures and responses. Every setting where pets of animals of any type are located must have some rules in place (Ross, 1989, p. 5) At Green Chimneys we maintain a health record on each animal and we recommend this task as an essential component of any planned AAA/T program.

RULES THAT GUIDE ANIMAL-ASSISTED THERAPY PROGRAMS

The Continuous Quality Improvement Council at Green Chimneys has focused a great deal of attention on the development of rules to guide practice in our AAT approaches to treatment. These rules are enumerated for all Green Chimneys staff as part of the agency's initial formal orientation process and are codified in writing in our organization's literature. We have found the following rules to be useful and we believe they are adaptable for other organizations: *(NB: not all rules are listed here.)*

- ✧ House animals are to be approved by the organization's administrator or designee
- ✧ Appropriate animals includes dogs, cats, birds, fish, hamsters, gerbils, guinea pigs, rabbits and, where appropriate, conditions exist, farm animals such as goats, sheep, ducks, chickens, cows and horses.
- ✧ Wildlife are not permitted in the program unless they are cared for under the supervision of a licensed individual and then only in a rehabilitative circumstance.
- ✧ At the time of admission, a medical record is started on each animal and is kept up to date as long as the animal remains in the organization.
- ✧ Animals are to have up-to-date vaccinations.
- ✧ Animals are to have an annual physical by a qualified veterinarian.

- ✧ Animals who are ill are to be treated by a qualified veterinarian.
- ✧ Aggressive animals will be removed immediately.
- ✧ Dogs or cats are to be altered or spayed.
- ✧ The administrator or designee is responsible for acceptable animal husbandry practices.
- ✧ Animals are to be controlled by leash, command or cage.
- ✧ Animals are not permitted in the following areas: areas where food is cleaned, stored or prepared; vehicles used for the transportation of food; patient/staff' toilet, shower and dressing rooms; and drug preparation areas, nursing stations, and sterile and cleaning supply rooms.
- ✧ All pet utensils, food and equipment used for maintenance of pets are to be kept in an area separate from clients' food preparation areas.
- ✧ Animals are to be fed according to schedule posted where the animals live and are cared for.
- ✧ Animals are not to be fed human food.
- ✧ Fresh water is to be made available to the animals at all times
- ✧ Food handlers are not to be involved in animal care, feeding or cleanup of animals food or waste.
- ✧ Clients are to be involved in caring for the animals
- ✧ Animals are to be part of weekly sessions with the clients.

PRINCIPLES THAT GUIDE ANIMAL-ASSISTED THERAPY PROGRAMS

(Not all principles are listed here.)

- ✧ The rights of individuals who do not wish to participate in the program will be considered first and off-limits areas for animals will be maintained for this purpose.
- ✧ Workers should integrate the patient's interactions with animals into their comprehensive treatment plan, with specific and relevant goals.
- ✧ The worker will strive to assure the patient the opportunity to choose his or her own goals in work with the animals and assist him or her in identifying and achieving this end.
- ✧ Sessions that involve animal-assisted therapy must be documented in the weekly progress notes.
- ✧ The worker will document any and all interactions that may be novel behaviour as a result of animal-animal bonding.
- ✧ The worker will closely supervise and monitor any patient who has a past history of animal abuse.
- ✧ The worker will closely supervise and monitor the temperament of all animals who are utilized with patients. Animals will be permitted to rest every hour and a half and not be permitted to work more than 5 hours per day.
- ✧ The worker should process animal-assisted activities to assist the patient in exploring new or possible previously unexplored issues.
- ✧ The worker should utilize the animals with the patient to explore areas that can be seen as 'dress rehearsal for life', that is, birth, death, pregnancy.
- ✧ The worker should use the animal assisted interaction to aid the patient in mastering developmental tasks.

- ✧ The worker should utilize the animal to promote feelings of self-worth in the patient whenever possible.
- ✧ The worker should utilize the animal to promote responsibility and independence in the patient.
- ✧ The worker should utilize the animal to teach the patient the need to sacrifice or undergo inconvenience for the sake of a loved one.
- ✧ The worker should make every effort to utilize the animal to promote companionship, warmth and love with the patient.
- ✧ The worker should remember that utilizing the animal is not an 'open sesame' or a panacea to working with or uncovering the 'inner world' of the troubled patient.
- ✧ The worker should work to maintain the 'therapy' component in animal-assisted therapy.
- ✧ The worker should use the animal to teach lessons in life, thereby promoting and nurturing appropriate emotional responses from clients.

FORMAT FOR TRACKING ANIMAL CRUELTY

A. Reporting Cruel, Abusive or Aggressive Behaviour

- ✧ An incident report is filled out on all children who are cruel to an animal
- ✧ Verbal aggression or threats to hurt an animals are given to the farm psychologist verbally
- ✧ The farm psychologist processes all incidents and fills out an animal aggression review form

B Immediate short term intervention

- ✧ The child's level of emotional, cognitive and moral development is assessed
- ✧ Attempts are made to process the incident with the observer
- ✧ Repercussions to the child's actions
- ✧ Restitution
- ✧ Human education

C. Considerations in long-term intervention

1. Referral for treatment

- ◆ Acceptance of the child's feelings and level of functioning
- ◆ Humane education in the form of hands-on work
- ◆ Learning about feelings through working with animals, what is a feeling, location of feelings in the body
- ◆ Anger work
- ◆ Empathy work, boundary work, projections and the reciprocity of a relationship
- ◆ Termination.

Appendix 3

Extract from *Youth and Animal Pilot Project (YAPP): Program Evaluation. Final Report*, Prepared by Dr. Fred Mathews, Central Toronto Youth Services. Toronto, Ontario, Canada. Sept 10, 2002.

CHAPTER 4

Discussion and Relationship to the Literature

It is evident from a review of all the data gathered in the evaluation that YAPP had a significant impact on program graduates. There was, for the most part, a high degree of agreement among the various components of the study methodology. The young peoples' own perspectives on their experiences in the program revealed a remarkable and deeply felt personal impact. This is not surprising given that they are responding from a "whole life" perspective. The adult views of the impact of YAPP, though gathered through a narrower lens of research based surveys, largely concur with the views of the young people and give support to the conclusion that YAPP is an effective rehabilitation program.

As a further note of the accomplishments of YAPP graduates, 41 dogs found new homes. It should also be noted that the model of service used in YAPP engaged the young peoples' interest to a remarkable degree as evidenced by the fact that several youth actually wanted to repeat the program.

Compared to controls, YAPP group members achieved greater improvement in areas pertaining to global functioning, more favourable results in terms of improving criminogenic factors, and reduced reoffending. The expected outcomes of the program were observed in or reported by YAPP graduates, including:

- ✧ Increased ability to regulate affect and control anger
- ✧ Reduced levels of violence or antisocial behaviour
- ✧ Reduced recidivism or reduction in the amount or seriousness of offending
- ✧ Improved coping and problem-solving skills
- ✧ Improved cognitive functioning
- ✧ Reduced minimization and cognitive distortions
- ✧ Improved social skills
- ✧ Improved relationships with family, friends and peers
- ✧ Development of empathy

The achievement of the above outcomes was expected from the application of biophilia and social learning theory (Bandura, 1973), attachment theory (Bowlby, 1973; 1988) and cognitive-behavioural theory (Andrews, Lescheid and Hoge, 1992).

The tenth and eleventh outcomes - improvement in knowledge, attitudes and behaviour toward animals and acquisition of non-violent, non-coercive dog training skills - demonstrated the impact of the humane education aspect of YAPP. This outcome is promising in terms of the research linking animal cruelty to aggression toward humans.

The impact and benefit to YAPP participants of the connection with the dogs is strongly evident in the data. The presence of the dogs helped facilitate positive attachments to the animals, other group members and adult staff. They also provided YAPP participants with an opportunity to step out of their isolation, obtain perspective on their life problems and nurture others.

The disarming and calming influence of the dogs was witnessed numerous times by the researcher. On one particular occasion, the researcher observed a youth lying on the floor cuddling and rubbing heads with a large Rottweiler only moments after an angry outburst with peers in group.

The dogs and group sessions provided participants with opportunities to form positive attachments. It was evident during each cycle that program staff bonded to the youth, the youth to the adults and the youth to the dogs. Through the group and dog training, participants learned to take risks, to connect and establish intimacy and to let go. Participants realized that while letting go generated feelings of sadness, they learned they could get past it and be okay.

Through the dog training, participants obtained an experience of being in a position of power and authority that was positive, non-abusive and non-coercive. This experience taught them the importance of respect, patience, and understanding when trying to help the dogs learn and obey commands. Most of the youth came to the program possessing an idea about power as something one exploited to harm others or to gain advantage. This negative and abusive use of power could be witnessed in the antisocial behaviours that brought them into the criminal justice system and in their often turbulent relations with peers and family members. YAPP provided participants with an opportunity to view power as something benevolent, something they could use constructively to help themselves, the dogs and each other.

Awareness of what was at stake for the animals facilitated the development of personal responsibility and an "other" orientation which reduced typical adolescent egocentricity. The dogs and the group gave the youth an experience of interconnectedness and a sense of healthy interdependence.

The dog training increased participants' motivation to attend the program and to work hard. Seeking novelty is consistent with norms of adolescent development so it is not surprising that this, along with an appreciation of the stakes, would increase their motivation to want to participate in the program.

The youth valued the opportunity to give something back to the community in the form of the dogs finding new homes. This aspect of wanting to 'give back' revealed a shift toward resilience and toward taking personal responsibility for their behaviour.

The youth typically experienced a boost in their self-esteem which may be attributable to seeing their new skills work on the dogs, to making new friends, to making a contribution to the community or to seeing improvement in their self control and life skills. Seeing meaning and purpose in their rehabilitation helped encourage them to engage in the work more completely.

Though YAPP was intentionally rehabilitative, it did not look like "therapy" to participants. Because it more closely resembled a "real life" situation, it may have had more appeal to participants and reduced the resistance typically seen in more conventional youth criminal justice programs.

The analysis of the study data yielded a number of findings that provided support specifically for biophilia theory:

In their responses to questions about the program, participants tended to focus on their experiences with the dogs. This may be due to the novelty of the dog training or an indicator of where the young people made their greatest personal, mental or emotional investment in YAPP.

The dogs appeared to play several roles simultaneously - companion, student and teacher and facilitated a number of social and learning processes in the youth. The dogs unconditional acceptance provided a notable catalyst for learning and change in participants. These findings are consistent with (Levinson, 1978, 1980; Messent, 1983; Salomon Corson, et. al., 1987; Hunt, et. al., 1991).

The dogs acted as a buffer for the youth in terms of their adjustment to the program, becoming part of a working therapeutic group and to lowering defenses and resistance. This finding is consistent with Beck and Katcher (1983).

The dogs acted as a facilitator of social relations between peers and between staff and youth. These findings are consistent with Levinson (1978, 1980), Messent (1983), Salomon Corson, et. al. (1987) and Hunt, et. al. (1991).

The dogs acted as mediators of the young people's social development and, for a few, spiritual development. In fact the word "spiritual" was mentioned specifically by two young people in terms of the level of connection they felt with the animals and the love or affection they felt that the dogs drew out of them.

The dogs acted as facilitators of positive emotional expression for participants. This finding is consistent with Kellert and Wilson (1993).

The dogs' boisterousness and immediacy often provided comic moments and opportunities for the youth to simply have fun. The lightness in these moments facilitated learning by lowering tension and anxiety. This finding is consistent with Shepard (1996).

The youth acquired a sense of accomplishment through recognition of the life skills and dog training skills they acquired. Caring for animals has been shown elsewhere to help develop self-esteem and a positive self concept in children Melson (1988) and Davis (1987).

The dogs improved participants' cognitive functioning as the youth had to "focus" on the training or else lose the dog's attention. The perceived "weight" of the responsibility they were undertaking and the value placed on the outcome for the dog, combined to help keep participants concentrating on their learning. This finding is consistent with Sable (1995) and Kellert and Wilson (1993).

Connection with the dogs appeared to lower participants' stress allowing them to relax. This finding is consistent with Katcher, Segal and Beck (1984).

The responsibility for training the dogs in order to help them find a home gave the youth opportunities to nurture, meet the needs of another and develop empathy. This finding is consistent with Bryant (1985).

Conclusion

The YAPP program demonstrated how the formation of bonds of intimacy to others and to community can reduce feelings of isolation and improve troubled young peoples' sense of self worth and personal efficacy. Offered supportive interventions that placed them in demanding life

situations with real responsibilities, YAPP program graduates accepted the challenge and found positive motivation and meaning in their rehabilitation experience. The combination of evidence-based rehabilitation practices with the obviously strong and catalytic effects of biophilia helped create a supportive and potent milieu in which to foster positive youth development.

The achieved outcomes noted in the youth interviews and observed in the survey findings are promising in terms of how they demonstrate an increase in factors associated with resilience. Achievement of these positive outcomes in program participants demonstrated that the YAPP service model is an effective intervention with great potential to promote community safety and prevent and reduce bullying, crime, animal cruelty and interpersonal violence and aggression. It is also a working model of how to combine diverse community partners to build social capital in the service of reducing vulnerability and risk factors in young people in trouble with the law and of raising healthier, more responsible children and youth.

Limitations of the Study and Future Directions

While a triangulated research design using multiple methods can increase the weight of evidence and help compensate for limitations inherent in any one particular method, it does not remove all challenges to validity and reliability. Combining "voice" or personal experience accounts and survey testing methods does widen the data pool and allow for more depth in the analysis, but the results must always be viewed against the small sample sizes of both the experimental and control groups. On the basis of these considerations, the findings should be considered tentative and the study exploratory.

Items on both the CTYS/COS and the Risk Assessment Form are not "weighted". That is, it is not known if particular categories or domains on either of these survey forms have a greater or lesser impact on reducing risk, lowering recidivism or improving global functioning. Future research that helps determine the weighting of categories on these surveys may help improve their utility in assessing the impact of young offender programs.

The youth in the study were considered to be at "moderate risk" risk to reoffend. The YAPP model may or may not achieve the same results with youth at the low or high ends of the risk continuum. The YAPP model may also not have the same impact on youth in the criminal justice system that have measurable clinical or mental health problems.

The YAPP model requires a sophisticated infrastructure to operate smoothly. Any attempt to replicate the model without consideration of this fact could compromise efforts to replicate the findings.

In future studies it would be useful to include interviews, where appropriate, with parents and teachers of YAPP graduates to obtain additional perspectives concerning program impact. It would also be useful to follow up with YAPP graduates at time intervals ranging from one to two years to determine long term impact of the program.